Sources of Regime Legitimacy

Quality of Government and Electoral Democracy

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1 Introduction

This thesis will investigate what creates legitimacy for national regimes, meaning the regimes that govern a national state. Regime legitimacy, as I define it in this thesis, exists when citizens support their regime because they believe it has a moral right to rule over them (Gilley 1999a:3). It is therefore a quality of the relationship between the citizens and the regime. This moral right is again thought to stem from a conviction that the regime serves the common good of society, and not just the interests of certain groups within society (Gilley 1999a: 3-5, Easton 1965: 311-319). Legitimacy is often thought of as one of the most important factors in a regime's ability to govern effectively, and to maintain its ability to govern in times of crisis. By giving the regime a moral foundation, the regime then has the right to expect the obedience and cooperation from their subordinates, which is important for the efficient organization of any society and for political life in particular (Easton 1965: 278-280). A regime that looses legitimacy will have to use other measures to obtain obedience and cooperation from their citizens, like coercion, threats and use of force. Such a regime will be far less efficient and have a higher risk of collapsing (Beetham 1991: 27-29, Easton 1965: 269-271). By ensuring cooperation and stability in a peaceful and cost-efficient way, not because people have to but because they believe it is the right thing to do, legitimacy could be said to be "the ultimate soft power" (Gilley 2009a: 149).

Legitimacy it more often an issue when it is absent than when a regime is legitimate. The absence, or low level, of legitimacy is often used as an explanation of the collapse of regimes, like in Communist Eastern Europe and the Soviet Union (Beetham 1991: 28). Another example is what happened during "The Arab Spring", where long-lived and seemingly stable dictatorships in the Arab World suddenly crumbled under the pressures of street protest and revolt. The Arabic Spring was sparked by a struggling fruit salesman in Tunis who set fire to himself in a protest to the regime. He had been denied a permit to sell fruit in the local market, and was struggling to make ends meet. His action of despair became a symbol and a rallying point for the opposition to the undemocratic and extremely corrupt regimes in the region (Noueihed 2011). Within a month, the regime in Tunisia fell, and soon the regimes in Egypt, Syria, Yemen, Bahrain and Libya was in deep trouble, having to resort to violence to stay in power. The regime in Libya fell, and the dictators for life in both Egypt and Yemen had to end their "term" early (Knell 2011, Mounassar 2012, NTB 2011, Raghavan 2011).

The regimes were well known for their repressive and undemocratic nature, as well as wide-spread corruption through all levels of the regimes, which meant that what ever economic growth they were able to achieve did not benefit the public in general (Gause III 2011: 85-87, Goldstone 2011, Anderson 2011:3). These are all factors that have been shown to cause a decline in the legitimacy of a regime (Gilley 2009a), but we still know little of their relative importance. Therefore, it is difficult to tell whether the Arab dictatorships lost their legitimacy because of their inability to provide economic and material progress for their population, or if they were already delegitimized because of their corrupt and undemocratic nature, and that the economic problems just sparked a protest that would have come sooner or later. By looking closer at the relative importance of the sources of legitimacy, we can perhaps gain an insight into how both democratic and undemocratic regimes are able to maintain legitimacy, and under which conditions they are likely to lose it.

1.1 Research question

The research question I will try to answer in this thesis is: "*What are the most important factors in creating regime legitimacy?"* Most attention will be given to the question of the importance of having an electoral democracy relative to that of having well-functioning, uncorrupt public institutions. The effect of these factors will be tested in a multi-level analysis against other factors that have been shown in other studies to have an effect on regime legitimacy. These are age, education, post-materialist values, social capital, ethnic fractionalization and economic performance.

My interest in this question was triggered by an article written by Bo Rothstein (2009) – "Creating Political Legitimacy: Electoral Democracy Versus Quality of Government". In this article he hypothesizes that high quality bureaucratic institutions, characterized by low levels of corruption and discrimination, has a stronger effect on political legitimacy than electoral democratic. The reasons for this are two-fold: for one, several of the most well functioning democracies in the world fall short of democratic ideals as well as the democratic expectations of their citizens, and have as a consequence experiences declining levels of confidence. But more importantly, Rothstein claims that discrimination of citizens in the implementation of policies has more direct, possibly life threatening consequences, whereas discrimination in elections has less direct and severe consequences. Therefore, people are more likely to view their regime as illegitimate if they are discriminated against because of

their ethnicity or due to corruption when they are in need of public services than being denied the right to vote in free and fair elections.

Rothstein bases this hypothesis both on theoretical arguments and empirical studies than have shown the prevalence of corruption to influence the legitimacy of a regime more than its level of democracy, as well as studies that find discrimination in the exercise of public power to be a major cause of civil war – something Rothstein (2009: 319-325) argues is a counterpoint to legitimacy. Still, the article does not provide a statistical test of this hypothesis, which is what I will do in this thesis.

The implication of this hypothesis is that attempts at spreading democracy throughout the world, or attempts at remedying failed states, should emphasize the creation of effective and uncorrupt public institutions just as much, if not more, than introducing free and fair elections. As shown with the example of the Arab Spring, legitimacy is important for the survival of any regime, but it is often thought to be of special significance to newly established democracies. Legitimacy provides regimes with the ability to make unpopular decisions and demand sacrifices from their citizens (Easton 1965), something which is especially needed during a transition to democracy. A newly established democratic regime will need time to create good democratic procedures and institutions, during which a period of reduced output and welfare might occur. Without a strong support for the new democratic regime, such a transition will be more difficult and a return to authoritarian governments more likely. Then, if legitimacy is created and maintained through non-corrupt and non-discriminatory public institutions, then working to establish democratic regimes ought to be just as much focused on creating good public institutions.

Rothstein calls this concept "Quality of Government" (or QoG), defined as "impartiality in the exercise of public authority" (Rothstein and Teorell 2008: 170), and I will use this concept throughout this thesis to place this study within the larger framework of studies of the effect of QoG. QoG is related, though conceptually separate, from electoral democracy. Both are guided by the norm of impartial treatment, but they belong to different parts of the political system (Rothstein 2009: 318, Rothstein and Teorell 2008: 170). Electoral democracy can be seen as a way of structuring inputs from society where ideally it should treat all citizens equally through free and fair elections. This is an impartial way of treating citizens on the input-side of the political system (Rothstein 2009: 318). Correspondingly, Quality of Government is defined by impartial treatment on the output-side, where public authority is

exercised. This ideal proscribes that "when implementing laws and policies, government officials shall not take into consideration anything about the citizen/case that is not beforehand stipulated in the policy or law" (Rothstein and Teorell 2008: 170).

This conceptual separation of electoral democracy and Quality of Government is based on David Easton's (1965: 32) model of political systems, where the influence from the environment a system operates in is referred to as *inputs*, and come in the form of *demands* and *support* from the citizens. *Outputs* are made up of the decisions made by the authorities and how they play out in real life. The inputs and outputs are connected through a *feedback* mechanism, through which outputs can change the environment the system operates in and generate new and different inputs. The process of making decisions is contained within the political system itself (Easton 1965: 26-29), so these concepts make no assumptions about what a regime decides to do, only *how* it decides (through democratic procedures) and how these decisions are *implemented* (through impartiality on the output-side).

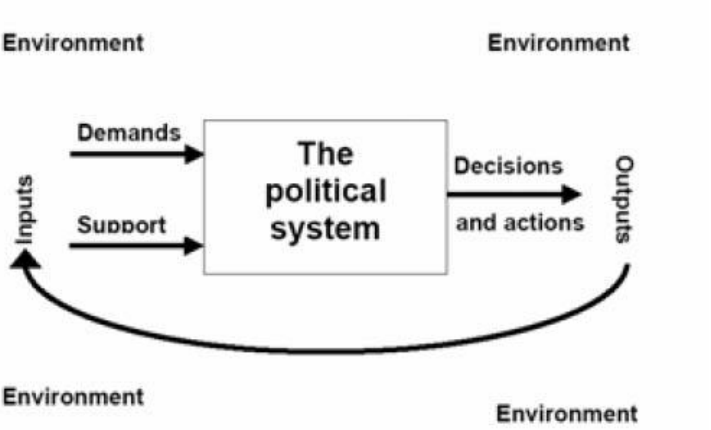

Figure 1.1: David Easton's simplified model of political systems.

1.2 Contribution to the research field

According to King, Kehoane and Verba (1994: 15) two criteria should guide our choice of research questions: it should be important in the "real" world, and it should make a specific contribution to an identifiable scholarly literature. Granted that legitimacy really has the effect on the stability and effectiveness of regimes that has been claimed, I feel the criterion of importance is amply fulfilled. Analyzing the research question will also contribute to the research field because the hypothesis that Rothstein argued for has not been tested systematically. Finding evidence that supports or rejects this hypothesis will be a contribution

to understanding both how and where in a political system legitimacy is created, as well as to the relative new research on the effects of Quality of Government.

As mentioned, Rothstein uses existing empirical studies to support his hypothesis, though there have been surprisingly few studies of the sources of legitimacy. One of the few is Bruce Gilley's "The Right to Rule" from 2009, were he found democracy, performance and development to be the main factors in creating legitimacy. His measure of legitimacy is a macro score for each country bases on whether the regime governs according to an established law, whether this law is in accordance with the values of the society, and whether the citizens express consent to their rule. He used this to look at the correlation between legitimacy and economic, cultural and political features of different states (Gilley 2009a: 39-43). This study offers valuable insights into how states can create and maintain legitimacy. However, since he only tested the bivariate correlations between different factors and legitimacy, he was unable to say anything about the relative importance of these factors. It is quite plausible that some of these factors functions as intermediate variables, with less independent effect on legitimacy than what Gilley's study suggest. Testing these factors simultaneously in a regression analysis can uncover whether this is the case.

Another study that Rothstein used to support his argument is Michael Seligson's study of the effect of corruption on regime legitimacy in four Latin-American countries (2002). Seligson used survey data asking people about their personal experience with different forms of corruption, as well as their support for several key public institutions. He found that people's experience with democracy had a strong negative effect on their support for public institutions. In another study of 23 Latin-American countries, Eivor Hovde Hoff (2011) found that both the personal *experiences* people have with corruption and their *perception* of how widespread corruption is affects support for democratic institutions and democratic performance. These studies make a significant contribution by linking corruption and support for regimes at an individual level, showing that people who experience corruption or believe the regime to be corrupt are less likely to support that regime. However, none of them control for the level of democracy in the country, perhaps because all the countries in these studies are somewhat democratic. It is also restricted to one region of the world, which is known for its corrupt and unstable regimes. Therefore, it can be interesting to expand the analysis with regard to both regional coverage and the regime types included, so that we can test the effect of corruption relative to the effect of democracy.

Pippa Norris has recently provided a very thorough study of support for democratic governance in "Democratic Deficit – Critical Citizens Revisited" (2011). The book focuses on support for democratic governance and democratic principles. This is a continuation of the work she did along with many other scholars in "Critical Citizens" from 1999, but with broader range of countries included, both democratic and non-democratic. In these books, she and her colleagues shows how a range of different factors affects levels of support for democratic values, performance and institutions.

Many of these factors are the same that are thought to create regime legitimacy, what I call sources of legitimacy, and I will therefore test many of the same factors as she does. She also uses multi-level analysis and data from World Values Survey. So there are obvious similarities between her books and this thesis, and I have tried to use the same framework in order to build on this study. One major difference is that even though her latest study (Norris 2011) shows that both the degree of democracy and the quality of the governance has a strong effect on support for democracy she did not test these two factors simultaneously. It also made no attempt at saying something about regime legitimacy as a concept, but rather treated its different levels separately. Further, I use other indicators to measure electoral democracy and Quality of Government, which I argue give a more precise operationalization of these factors. And finally, I am also interested in how the effects of the different sources of legitimacy in democratic and non-democratic regimes respectively, and I will therefore look into how the character of the regime influences the different sources of legitimacy to a greater extent than Norris does.

The main contribution of my study will be testing the effect of both Quality of Government and electoral democracy in the same analysis to see their relative importance on regime legitimacy, and through that see if Rothstein (2009) is correct in his claim that Quality of Government is more important in creating regime legitimacy than electoral democracy.

1.3 Structure of the thesis

The next chapter will elaborate on what regime legitimacy is, present the different sources of legitimacy that will be included in the analysis and discuss why they are expected to influence regime legitimacy. To define regime legitimacy, I will use David Easton's (1965) concept of diffuse regime support, which can be separated into three levels of diffuse support that are directed at the regime.

In chapter 3, I present the method I will use to investigate the effect of the different sources of legitimacy - multi-level analysis. I use multi-level analysis because some of the independent variables are qualities of countries while others are qualities of individuals, and multi-level analysis allows for testing these effects simultaneously. This chapter also contains a presentation of the data used in the analysis, discussions of the operationalization of the dependent and independent variables, and of different methodological challenges that the analysis faces.

The analysis will follow in Chapter 4, where the different levels of regime support will be tested separately. The specific hypotheses that the analysis will attempt to answer are also presented in chapter 4. In the last chapter I will try to conclude on what results tell us about what creates regime legitimacy.

2 Regime legitimacy and its sources

The following chapter will provide a theoretical backdrop for the dependent and independent variables that will be included in the analysis. The specific operationalization of the different variables, meaning how they will be measured, will be presented in the third chapter. I start with the dependent variable – regime legitimacy. Then, I will present the two main explanatory variables – Quality of Government and electoral democracy – and why QoG is expected to be more important in creating regime legitimacy than electoral democracy. That will be followed by a discussion of how these two factors are related, before I discuss the other factors that will be included to control for the effect of QoG and democracy.

2.1 What is regime legitimacy?

I define regime legitimacy as the support citizens give their regime based on a moral conviction that it has a right to rule, and that is serves a common good. This is one of two ways of understanding legitimacy that stands out in the literature (Beetham 1991: 3-15). The other approach sees it as a quality of the regime itself; a regime is legitimate if it meets certain normative standards of how a regime should wield power. This is an understanding that is most common in either law or political philosophy, where the researcher theorize on how states can hold power over people in a morally valid way, which objectives it should pursuit and what type of organization that can ensure this best. The most common requirements are democratic and constitutional rule, where the exercise of authority is bound by law that enjoys some form of popular sanction, but other options are possible. In any case, it requires the researchers to make a normative judgment (Beetham 1991: 4-5). As this is a descriptive analysis, where I will use statistics to investigate what makes people support their regime, I will have little to say about this approach.

The approach I use understands legitimacy as a quality of the relationship between the regime and its citizens. A regime is legitimate if its citizens have moral reasons for complying with its decision and accepting its right to hold power over them. David Beetham (1991) holds legitimacy to be dependent on the congruence between the values of the citizens and the values that underpin the regime. The power of the regime has to be justified in terms of the beliefs of the citizens, and since people's values can vary, it is possible for different types of regimes to be legitimate (Beetham 1991: 11). Bruce Gilley defines legitimacy as a "particular

type of political support that is grounded in common good or shared moral evaluations" (Gilley 2009a: 5). Since legitimacy here is a question of the support given by citizens of a regime, it can be studied empirically. We might not be able to know for certain why people support their regime or not, but "it is not unreasonable to assume that, where we consider a state of affairs morally proper or right, we are likely to view it in highly favorable terms" (Easton 1975: 451). This type of support is what David Easton labeled diffuse system support, and I will use this as a measurable concept of regime legitimacy.

2.1.1 Diffuse system support

Diffuse system support is a type of political support that derives from a conviction that it is right to accept and obey the regime and its decisions because the regime serves the common good of society, and not just the special interest of itself or certain groups within the society (Easton 1965: 278). If a regime has shown a capacity and willingness to advance the common good from the citizen's point of view, diffuse support will build up and form a reservoir of favorable attitudes towards the regime that makes citizens accept the policies that they do not necessarily agree with. This reservoir will help the regime survive periods of crisis, as it is not directly dependent on producing favorable outputs (Easton 1965: 273-277; 1975: 444-445).

The other form of support is specific support, which is directly dependent on citizens agreeing to what the regime or the political actors inhabiting that regime are doing (Easton 1965: 268). Unlike diffuse support specific support will fluctuate depending on the regime's ability to satisfy their demands – if outputs drop the support drops as well (Easton 1975: 437-442). It is only if it is sustained over a long period of time that specific support can transfer into diffuse support. Therefore, what is most likely to provide stability and survival of the regime in periods of crisis where outputs drops or stops completely is its reservoir of diffuse support (Easton 1965: 273-277).

Diffuse support is also something very different from compliance or obedience that regimes can obtain thought the use of threats, coercion and violence. For a regime to be legitimate, i.e. have high levels of diffuse support, its citizens have to have good *moral* reasons to obey, which is based on the belief that the regime is serving and advancing the common good of the society. This raises the question of that the common good of society is. David Easton describes the common good as something "that would transcend the demands of any

particular group and yet be acceptable to all on the basis of some criterion other than particularistic wants" (1965: 314). Gilley, who also thinks that legitimacy depends on governing according to a principle of common good, states that the common good includes ones fair share, as well as the fair share of others (2009a: 5). Even though this definition sounds valid, it is unlikely that one can discern what such policies are in practice in a given society. For Easton the main point was not whether an objective common good exists or whether we can find out what it is, but rather whether people think that it exists. If such a belief is absent in society, people are more likely to pursuit their own personal interest exclusively without regard to what others get, the regime can at best only create specific support. For a regime to obtain legitimacy there has to be some form of a shared moral standard for what the regime should do and who's interests they shall advance (Gilley 2009a: 4-5).

2.1.2 Different levels of system support

Easton did not only develop a distinction between different types of support, he also showed that the support of the citizens is contingent on which part of a political system it is directed towards. In the original framework, support can be directed at three different objects – the political community, the regime and the political actors (Easton 1965). The support directed towards the political community is the most diffuse one, while the one directed towards the political actors is classified as specific. Recent studies have expanded this distinction into five different objects by empirically showing that citizens also separate between three different objects within a regime – the regime institutions, the regime performance and the regime principles (Norris 1999a: 9).

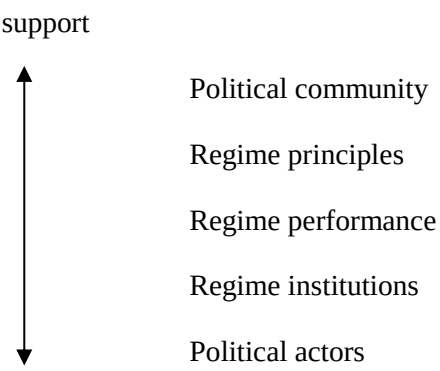

Figure 2.1: Levels of political support

At the most diffuse level, support for the *political community* concerns whether citizens feel a sense of belonging to the nation-state. As the state is the most basic unit of our political systems, support or acceptance of the state's right to exercise power is also basic for the functioning of our political systems (Norris 1999a: 10). Usually this is expressed through feelings of nationalism, national identity and patriotism. A lack of support for the political community might mean that one does not accept the specific state borders as rightful or feel excluded from the national community (Norris 2011: 25).

Support for regime principles concerns whether one supports or accepts the norms and values that the regimes is founded upon and guided by. This includes both the formal and informal rules that organize the functioning of the political system, like the constitution, electoral laws and how these work in practice (Norris 2011: 26). Even today, when democracy is becoming more widespread and democratic values are thought to be almost universal (Norris 2011: 96), there are many different types of principles that can underpin a regime. For a regime to be legitimate there has to be a correspondence between the values of the citizens and the principles that guide a regime (Beetham 1991).

Support for regime performance means whether or not citizens support the way the regime functions in practice (Norris 2011: 28). Both democratic and authoritarian regimes can have problems meeting the expectations and needs of the citizens to deliver concrete result, even though the way they govern is in accordance with their values. Citizens in Western democratic regimes, for example, have been shown to be strong supporters of democratic values, but unsatisfied with how the democracy they live in functions (Norris 2011: 88-91).

Support for regime institutions is expressed through citizen's trust and confidence in the main political institutions of the regime, like the government, the parliament, the courts, the bureaucracy and different public offices. This is also counted as a diffuse level of support, because it is directed towards large, impersonal institutions, but this distinction is not clear-cut. Support for regime institutions might be affected by the way citizens feels about the political actors that inhabit these institutions, and therefore be a product of specific support (Norris 2011: 29).

Support for political actors is the most specific level of system support. This concerns what type of attitudes citizens holds towards different political actors that inhabit the regime and institutions, mainly those that have been elected to a public office. Confidence in political parties is also included here. Though political actors might suffer a short term, or even chronic lack of confidence in the public, it does not necessarily translate into a lack of confidence in the political system as a whole (Norris 2011: 30). At least in democratic regimes it is fairly easy to remove political actors that one does not trust – one simply elects someone else.

Since the object of this thesis is *regime* legitimacy, I will look into support for all the three levels of the regime – *regime principles, regime performance and regime institutions.* Support for the political community, which is also a diffuse level of system support, will not be included. This means that questions of the legitimacy of state in it self, its boundaries etc., falls outside the scope of this study. So does support for political actors, which is too specific to categorize as a question of legitimacy.

All of the levels of support directed at the regime are thought of to be diffuse, and as such important for the legitimacy of the regime. Still, there is a continuum from diffuse to specific: regime principles is the most diffuse, regime performance a mid-level and regime institutions the least diffuse, and we can expect the most diffuse level to be the most important level for the legitimacy of the regime. If people do not support the values the regime is based upon, then it is unlikely that they will find their performance satisfactory or trust the institutions of that regime. Still, the other dimensions are important in their own right, as failing performance and low confidence in government institutions might undermine the support for the values of the regime in the long run, or make people feel that the regime is illegitimate because it fails to live up to its principles (Easton 1975).

2.2 Sources of legitimacy

Theories of how legitimacy is created have brought forward different potential sources of legitimacy that I will account for here. First, I will present Quality of Government and electoral democracy, as well as discuss their relationship and relative importance in creating legitimacy. After that I will present other theories of how legitimacy is created. I have classified these sources into socio-structural factors, values and attitudes and economic performance.

2.2.1 Quality of Government

The importance of good governance, or bureaucratic quality, has received greater scholarly interest in later years (Rothstein 2009, Seligson 2002, Gilley 2009a, Norris 2011), after being surprisingly absent in a lot of research for many years. These studies have shown factors such as the strength and efficiency of state institutions in implementing public policies, or the strength, efficiency and independence of the courts to play a highly significant role in generating regime legitimacy. A high level of corruption is thought to undermine the legitimacy of a regime, both because it diverts resources away from economic and political performance and makes the regime less efficient in producing desirable outputs, but also because it usually entails that some groups or individuals receive more than their fair share, and others less (Seligson 2002: 409-414). Corruption is almost by definition a violation of the common good. Therefore it is unlikely that citizens, knowing that the institutions of their regime are corrupt, will support that regime.

Other studies have indicated that people do not only judge the performance of the regime based on what kind of outputs it generates, but also on the fairness of the process leading up to the output. How something is done may matter just as much as what is done (Rothstein 2009: 323). The perceived fairness a political process was shown to influence how people judge their political leaders in a study by Tyler, Rasinski and McGraw (1985), and increase their willingness to accept decisions they disagree with (Tyler and Rasinski 1991). Rothstein (2009) has argued that the degree of impartial exercise of public authority may be the key factor in generating regime legitimacy, mainly because of how the impartial treatment and fair processes increases people's confidence that they are not treated any different than other people and get their fair share – i.e. that the regime is serving the common good.

Impartial exercise of public authority is the main feature of the concept of *Quality of Government.* Rothstein and Teorell (2008: 170) define it as "when implementing laws and policies, government officials shall not take into consideration anything about the citizen/case that is not beforehand stipulated in the policy or law". This concept rules out all forms of corruption in public institutions, like bribes, nepotism, patronage, political favoritism etc. A narrow definition of corruption, focusing on a financial or private gain, might not capture the full rage of possible partial treatment in public institutions and their effect on regime legitimacy (Holmberg et. al 2009: 141-142). Such an impartiality on the output side is expected to create legitimacy both because it satisfies citizens expectations of fair procedures and treatment, and because implemented policy is in line with what was decided by the authorities (Rothstein 2009: 323-325). Quality of Government is in this sense both a moral and material good, and has been shown to correspond to a lot of desirable outcomes, like better public health, less poverty and higher GDP per capita (Holmberg et. al 2009: 135-161). So its effect on regime legitimacy should be direct and indirect through other outputs.

2.2.2 Electoral democracy

Democracy is widely thought to provide a regime with legitimacy, though for a number of different reasons. Often, it is the extent to which a democratic state respects and protects human rights that is thought to provide it with legitimacy (Gilley 2009a: 36-37, 44-45). It is also thought to improve institutional efficiency and the rule of law (Norris 2011: 191). These are effects that relate to a regime's performance, and therefore belong to the output-side of the political system. Including these factors into my definition of democracy would suggest that Quality of Government is a part of democracy, and make a distinction between the two impossible. In order not separate the two main explanatory factors in this thesis conceptually I define democracy more narrowly as impartial treatment on the input-side of the political system. To separate this from a broader definition of democracy, I label this *electoral democracy*.

In an electoral democracy, unlike an authoritarian regime, all citizens' interest is supposed to be threated equally, by holding elections that, ideally, should weight their interest equally – one person, one vote (Rothstein 2009: 314-315). Such an impartial way of treating citizens should make electoral democracy able to attain support from a larger part of their population than any other type of regime. By treating citizens impartially, electoral democracies are

more likely to fulfill a shared standard of common good that exists in society. Also, people know that even though they might not get their interests and demands fulfilled all the time, f. ex because their preferred party lost an election, there is usually a chance that they can win an election at a later stage (Norris 1999b: 219). Most electoral democracies also have other ways than elections where people can promote their interest, f. ex through interest organizations. As authoritarian regimes do not have free and fair election, the chance of getting your interest and demands satisfied is a lot lower than in a democracy. The degree of electoral democracy in a country should therefore have a positive effect on its regime's legitimacy.

2.2.3 The relative importance of democracy and Quality of Government, and their relationship

As explained, the objective of this thesis is to test the impact of democracy and Quality of Government on regime legitimacy, and see which factor that has the strongest effect in creating legitimacy. Both concepts are based on the norm of impartiality, which is expected to be important in creating legitimacy because it is more likely to satisfy the notion of a common good that the regime is supposed to serve. Here are a few examples of what electoral democracy and Quality of Government means in practice. These examples are in no way exhaustive.

Electoral democracy:

- Free, fair and relatively frequent elections, of representatives that actually decide public policy
- Universal suffrage, with few limits on who that can stand for elections
- Open public debate, with a free press, freedom of speech and a right to assembly
- Freedom to organize

Quality of Government:

- Bureaucracy implements public policy as decided by government, without unnecessary delay
- Absence of discrimination
- Uncorrupt and transparent public institutions
- Independent judiciary

When Quality of Government is expected to have a stronger effect on legitimacy than democracy, it is based on the premise that what a regime does on the output side has more direct consequences for people than what they do on the input-side, and that impartiality on the output-side therefore is more likely to produce legitimacy than impartiality on the input-side (Rothstein 2009: 323-325). For example, if you are being held by the police because of our ethnicity or because you are unwilling or unable to pay a bribe, that has severe personal consequences. The same goes for being denied a job in the public sector or some public service you are entitled to because you don't know the right people. Being denied the right to vote or to express your views is a serious violation of political rights, but it is does not in it self constitute a threat to life and security.

As elaborated earlier, the model of political system developed by David Easton (1965: 32) does not only assume that inputs influence outputs through the political system, but also that outputs influence inputs, i.e. the interests, values etc. that citizens hold. So it is quite likely that the degree of electoral democracy influences the degree of Quality of Government, and visa versa. For example, by gaining the right to vote, one can elect officials that will combat the corruption that denies you access to public services. Since both concepts are based on the norm of impartiality, they should be related. In all likelihood democratic regimes have higher Quality of Government. Rothstein and Teorell (2008: 166) claim that democracy is a necessary prerequisite for Quality of Government. If so, testing their relative effect becomes redundant, as there can be no Quality of Government without electoral democracy. Other studies have challenged this assumption, by showing that single-party regimes are better at creating Quality of Government than other types of authoritarian regimes - some even outperforms democracies (Charron and Lapuente 2011). They show that authoritarian regimes can have a relatively high Quality of Government, which could explain why some of them have shown high levels of legitimacy in previous studies (Gilley 2009a: 17).

In another study Charron and Lapuente (2010) investigated the relationship between democracy and Quality of Government, which they showed is curve-linear. Quality of Government drops at the mid-levels of democratization – meaning that Quality of Government is lower in new and low-developed democracies than in many autocracies (Charron and Lapuente 2010: 444-445). They argue that this effect is caused by democracies need to be responsive to citizen's demands, and that people in low-income countries will demand more immediate outputs from their governments than people in high-income

countries. Since Quality of Government is costly and takes time to develop, people in low-income countries will to a lesser degree demand this from their government than people in high-income countries, who are in a better position to invest in their future. Authoritarian rulers does not have to respond to people's demands in the same way, and can to a larger extent make such investments in the future as developing a high Quality of Government requires, if they have the incentives to do this. Their study concluded that in low-income countries, democracy had a negative effect on Quality of Government.

This shows that the relationship between electoral democracy and Quality of Government is not a one-to-one relationship, and that other factors have to be brought in. It also shows that it is possible to distinguish their respective effect on regime legitimacy, since electoral democracy does not necessarily bring with it higher Quality of Government and visa-versa.

2.2.4 Other sources of legitimacy

Socio-structural factors

Some theories of legitimacy and system support focus on features of the society and its people as explanations of a regimes level of support. These are often called *cultural* or *sociological* theories, and "emphasize the social and cultural conditions that give rise to positive feelings about the state" (Gilley 2009a: 33). "Cultural explanations emphasize that democratic orientations are sentiments learned during the formative early years from parents, teachers, and neighbors, just as people acquire an enduring sense of the political legitimacy of authorities, government institutions and the nation-state" (Norris 2011: 189). Differences in social structures can be expected to influence the level of regime support.

One common explanation within this literature is that *states with many different ethnic groups will have a harder time obtaining legitimacy,* as it makes it more difficult to create a shared national identity and sense of belonging within all its citizens, as well as shared norms and understandings of what the common good is (Easton 1965: 319). Internal conflict and disputes over state boundaries can be a consequence of low support for the political community, when some ethnic groups feel excluded or even discriminated against. The question is if this also affects support for the regime, or if it only concerns how citizens feel about their political community? If it does, it means that regimes in multi-ethnic states will always have low legitimacy, no matter how well they perform.

Other theories of regime support are related to the modernization of society that took place in the 19th and 20th century and the changes that came with them (Norris 2011: 121-125). One such change is the rise in mass *education*, and later also an increased level of higher education in society. Education is believed to increase people's cognitive skills, and their ability to follow and make sense of political developments in society. This skill is thought to be particularly important in modern democratic societies, where the access to information is so immense, so that higher education should be a strong predictor of political participation in advanced democracies. How important this is can be illustrated by the rising focus in these advanced democracies on education facilitating civic participation and insight into how democracy works. As a result of this, people with more education have been shown to place a stronger emphasis on living in a democratic society, while they also have higher expectations to the performance of democratic regimes. The insight and ability to follow the daily workings of a democratic society could easily facilitate a more critical attitude to the both the performance of the democratic regimes in general and its institutions, depending on how well the perform (Norris 2011: 130-131).

We seem to know a lot less about the effect of education in non-democratic countries, as the research has focused on democratic countries. If education has the same effect of strengthening democratic values in non-democratic states, it should undermine their legitimacy, which could mean that low levels of education in authoritarian regimes is what keep them legitimate, and that by increasing the level of education in their society they risk undermining their own legitimacy. Another possibility is that education in any country is organized in a way that generates support for the regime by socializing citizens into the values of the regime, just like it has been used to socialize people into one national culture (Gellner 2006: 34-37). In that case, education should strengthen legitimacy here as well.

Age is another commonly used socio-structural variable. The changes that happened with modernization and the transformation to a post-industrial world is thought to have created a value change which is intergenerational – occurring within the younger generation while not spreading to the older generations. This is thought to happen because values are instilled in a person in their formative years, and remain stable during the rest of their life (Norris 2011: 133). Younger generations should therefore hold a higher support for democratic values and be more likely to demand democratic governance. This should also lead to higher expectations to democratic performance and less confidence in democratic institutions. These

assumptions are brought into question by Norris' findings (2011: 139), showing that older people generally have both higher demands for democratic governance and higher satisfaction with it. She concludes that the effect of age must be independent of this suggested value change, but that it still has an effect.

Values and attitudes

As mentioned, modernization theory suggests that the process of modernization brought with it, or was accompanied by, a change in people's values. In particular, the transformation from an industrial to a post-industrial society in the West during the 1960s and 70s is thought to have facilitated a strong value change in the population, with a growth of *post-material values*. Such post-materialist values emphasize tolerance, trust, openness, care for the environment and demands for human rights, political freedoms and more room for political participation, where material values emphasized security, material well-being and progress (Inglehart 1999: 238; Norris 2011: 123). Post-materialist values developed as the memories of material deprivation in the years before, during and after the Second World War grew weaker in the 1960s and 70s, and lead to other demands than improvement of material well-being. These values are thought to strengthen demands for democratic governance and undermine authoritarian forms of rule. It is also increases expectations towards democratic governments, which has been thought to be a reason for the declining confidence in leaders and institutions that many researchers have observed in Western democracies (Inglehart 1999: 246; Norris 2011: 124). Norris found that it increased the demand for democratic governance, but also satisfaction with democratic performance (Norris 2011: 119-125; 134-136). These findings indicate that a lack of modernization, and hence a lack of post-material values, could explain how some authoritarian regimes are able to retain a high level of support despite being authoritarian – their citizens emphasize material progress and stability at the expense of political participation and a deepening of democratic governance.

Related to modernization theory is also the question of the effect of *social capital*. Social capital, or social trust as it is often referred to, is thought to explain many desirable outcomes in society and politics (Newton 1999: 169). Since both social trust and trust in regime institutions concerns whether citizens *trust* either people in general or the regime, they are often assumed to be related. Newton (1999) found a weak relationship between the social capital and political trust, defined as trust in the government, at the individual level, but the

effect was stronger on the macro level - societies with higher social trust tend to have higher levels of trust in the government. Olsen (2008) found a stronger relationship, indicating that social capital is one of the main determinants of support for regime institutions. This is supported by Pippa Norris (2011: 138-140), who found social capital to be a strong predictor of satisfaction with democratic governance, which is similar to the support for regime performance dimension of regime legitimacy. Its effect is weaker, though still positive, on what she calls democratic aspirations, which is similar to the support for regime principles dimension of regime legitimacy. She ascribes this effect to social capital's ability to create and strengthen norms of cooperation and shared responsibility in society (Norris 2011: 137), meaning that people with high levels of social capital might hold a stronger concept of a shared common good, and have a greater willingness to contribute to this common good in the general society. Generally, this indicates that social capital contributes to creating regime legitimacy[1].

Economic performance and distribution

Where sociological theories emphasize the social and cultural elements of a society and how they affect the legitimacy of the regime, performance-based theories emphasize the effect of the outputs that the regime produces. The assumption is that support is derived from a rational judgment of whether the performance is in accordance with what they want (Norris 2011: 189-190). Seymour M. Lipset (1959, 1994) argued that legitimacy was influenced by the performance of the regime to such an extent that it was almost a direct product of it. Others have argued against that assumption, showing that the link between the performance of the regime and its legitimacy is more complex since it depends on how the citizen's evaluate that performance (Gilley 2009a: 73-76).

Economic performance is commonly regarded as perhaps the most important of a regime's outputs. This is entirely logical, as a highly developed economy means that people enjoy a higher level of material well-being, and that the regime can afford to provide more material

[1] Bo Rothstein (2011: 164-192) has conducted an experiment looking into the effect of experiences with corruption on social capital, indicating that such experiences does not only reduce people's confidence in those corrupt people and the institutions that they represent, by also reduce their trust in people in their society in general (i.e. social capital). Though this is an early finding, not yet supported by other studies, it suggests that non-corrupt regime institutions, and in extension Quality of Government, could be a major source of social capital. This thesis makes no assumption about this relationship, but I find it interesting that social capital that is thought to create regime legitimacy might actually be caused by one of the other sources of legitimacy and therefore could be an intermediate variable.

benefits for their citizens. Bruce Gilley holds economic development to be a key factor in creating legitimacy, along with democracy and high quality governance (Gilley 2009a: 43-46). Ian McAllister (1999) argues that failing economic performance is a key to a declining level of confidence in regime institutions, though this effect depends both on people's expectations to the regime and how the public perceptions of the economic performance of the regime is shaped through the mass media. A failing economic performance should, according to McAllister (1999: 190), mainly result in a declining confidence in the government and those political actors that inhabit it, and not the other levels of regime support. Bad economic performance should not transfer into a more general dissatisfaction with the whole regime and reduce the more diffuse levels of regime support, unless it is sustained over a long period of time. This is in accordance with Easton's claim that specific outputs, like material well-being, mainly generate specific support and has to be sustained over a long period to generate diffuse support (Easton 1965: 267-277). As such, a *sustained economic growth* should be important in creating regime legitimacy.

High levels of economic development and growth is directly beneficial to people, but often it is more beneficial to some than others. To translate into diffuse system support, material benefits needs to be distributed in a way that satisfies the common good (Easton 1965: 275-277). If not, then economic performance and growth is more likely to produce specific support from those that benefit from it only, and not diffuse system support from the public in general. Therefore, the *distribution of economic growth*, and a regimes ability to *sustain economic growth over time*, should be key factors in creating legitimacy.

2.2.5 Summary

During this chapter I have identified the central explanatory variables, as well as defining regime legitimacy to consist of three conceptually separable dimensions: regime principles, regime performance and regime institutions. Each of them forms a separate dependent variable that I will operationalize in the next section. The independent variables are either qualities of countries or qualities of individuals, but will be tested simultaneously in different multi-level analyses. As such, they can be classified into country-level variables, or individual-level variables.

Country-level variables:

- Quality of Government
- electoral democracy
- ethnic fractionalization
- economic growth
- economic distribution

Individual-level variables:

- age
- education
- post-materialist values
- social capital

3 Data and method

This chapter starts by presenting the data used in the analysis, taken from World Values Survey and the Quality of Government dataset. I continue by discussing the validity of the study, and present a causal model for the relationship between the sources of legitimacy and regime legitimacy at the individual level and country level. I then discuss the operationalization of the dependent variables and the independent variables, before I present the multi-level analysis as the statistical method I will use to investigate the research question. Finally, I discuss challenges caused by missing values on the different variables.

3.1 Data used in the thesis

3.1.1 Data on the individual level - World Values Survey, 2005 wave

There are now available a few surveys with a truly global coverage measuring people's views on political, social and cultural issues. I use World Values Survey (WVS) because it is the most established one, having surveyed people's values and attitudes in countries all over the world since 1990, and because it covers 57 countries from all regions of the world and with a great variation in regime types[2]. The latest completed wave was conducted between 2005 and 2008 (World Values Survey 2009).

Some countries carried out a short version of the survey, leaving out some of the items that will be used in this analysis. Also, in some of the developing countries and more authoritarian regimes, some of the items had to be excluded either because it was too difficult to get a response from the respondent due to cultural factors or fear of possible repercussions, or because the authorities themselves demanded that they were left out (World Values Survey 2012b).

[2] The following countries was included in the forth wave (World Values Survey 2012a): Andorra, Argentina, Australia, Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Cyprus, Egypt, Ethiopia, Finland, France, Georgia, Germany, Ghana, Guatemala, Hong Kong, India, Indonesia, Iran, Iraq, Italy, Japan, Jordan, Malaysia, Mali, Mexico, Moldova, Morocco, Netherland, New Zealand, Norway, Peru, Poland, Romania, Russia, Rwanda, Serbia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Trinidad Tobago, Turkey, Ukraine, Uruguay, United Kingdom, USA, Vietnam and Zambia

WVS was conducted through interviews, mostly face-to-face though phone interviews were also used in countries where this was possible. The respondents were selected using different kinds of random sample methods, depending on what was feasible in the specific context, to secure a representative selection of respondents. They were selected from the total adult population, but where the line for adulthood was drawn a little different from country to country. Weights were created in countries were it was impossible to get a fully representative sample. The weighting ensures that the sample is representative of the national distribution along key variables as age, gender, education etc. (World Values Survey 2012b).

3.1.2 Country-level data

A wide range of data and indicators that measure different aspects of countries and the performance of governments has become available in recent years. The Quality of Government dataset (Teorell et. al 2010) has gathered many of these into one dataset, that mainly focus on measuring different aspects of Quality of Government – what it is, how to get it and what its effects are. These indicators are gathered from many different institutes, and can be integrated into the World Values dataset to measure the different sources of legitimacy that are characteristics of states or regimes, i.e. macro-level indicators. The variables taken from this dataset will be explained separately.

3.2 Validity and measurement equivalence

A measure is valid "when scores […] meaningfully capture the ideas contained in the corresponding concept" (Adcock and Collier 2001: 530). It means that what we use to measure a theoretical concept like regime legitimacy, in my case survey items from World Values Survey, produces scores that accurately reflect the real legitimacy of the regimes in question. Since regime legitimacy is a broad concept that can have different meanings and therefore difficult to measure precisely, we need a more precise definition of the concept. The definition I use is diffuse regime support. Still, a challenge remains with finding survey items that accurately measures the regime's diffuse regime support such as it is in reality, which I will address in the next section.

A great challenge to the validity in comparative politics when applying cross-country surveys like World Value Survey is the question of measurement equivalence. Measurement

equivalence can be defined as "weather or not, under different conditions of observing and studying phenomena, measurement operations yield measures of the same attribute" (Horn and McArdle 1992: 117) – meaning that we measure what we think we measure in each country and that these concepts can be compared across countries.

Measurement equivalence can be conceptually divided into four levels (Van de Vijer 2003: 153-154): construct equivalence, structural equivalence, measurement unit equivalence and full scale equivalence. *Construct equivalence* merely requires us to compare objects that are similar. *Structural equivalence* is achieved if a measure measures the same object across cultures, though the measure does not have to be the same in each country. This could be if cultural differences requires researches to use different survey items to capture the real meaning of the same object in the different cultural settings. To ensure the validity of each item in cross-country surveys it should be tested in each cultural context, to make sure that they measure the same thing in each context (Adcock and Collier 2011: 534-535). Still, going too far in local adaptions will hurt the ability to achieve the higher levels of equivalence. *Measurement unit equivalence* requires that we can use the same measure in different cultural contexts (not barring necessary translations) and still meaningfully capture its true meaning. However, it does not presuppose that the use of scales in different countries will be the same. One can apply different scales in the survey, to cater to how they are understood and answered in that cultural setting, or people in different countries could simply use the same scale differently. However, the highest level of measurement equivalence, *full scale equivalence,* requires that the same measure can be used in different cultural context to measure the same object, and that similar units will get similar scores – i.e. that the use of scales is the same across cultures.

What kind of measurement equivalence one needs depends entirely on the purpose of the study (Van de Vijer 2003: 153-154). Full scale equivalence is required in order to compare the means on different measures across countries, meaning that a 2.5 on support for regime principles means the same thing in different countries. Obviously, such comparisons form an important basis for multi-level analysis and this thesis. Establishing the level of measurement equivalence requires statistical testing, in the case of full scale equivalence it requires us to test if the factor loading of each indicator on a corresponding construct is equal across cultural groups, and that the indicator intercept is similar as well – meaning that they use the scales in the same way (Ariely and Davidov 2012: 367). Unfortunately, this kind of testing is so time-

consuming that it falls well outside the scope of this thesis. Ariely and Davidov (2012: 365-366) show that this kind of statistical testing is something that is rarely done, or even discussed, even in renowned studies in comparative politics. As I leave the question of measurement equivalence open, I will have to exercise some caution when drawing conclusions.

3.3 Causal model

Another issue that might require caution is the question of causality. Even though this thesis makes no attempt at establishing the casual links between the different variables involved, I clearly make the assumption that electoral democracy, Quality of Government and the other sources of legitimacy creates regime legitimacy, and not the other way around. I am open to the possibility that regime legitimacy could be, at least in part, the cause of such positive features of states and societies as democracy, Quality of Government, economic growth and high social capital are, and not just an effect of them. As legitimacy is thought to increase cooperation from the citizens, this could increase the regime's ability to deliver social and economic goods to their citizens and to undergo the major reforms needed for a transition to democracy and a high quality bureaucracy. This endogeneity is evident in Easton's (1965:32) model of political systems presented in section 1.2, where inputs influence outputs and visa versa. Still, like Norris (2011), Gilley (2009a) and Rothstein (2009) I assume that the influence goes mainly from democracy and Quality of Government to regime legitimacy.

Based on this assumption we can develop a causal model for the relationship between the different sources of legitimacy presented in section 2.2 and regime legitimacy. The causal direction is assumed to be the same for all the dimensions of regime legitimacy, though some of the independent variables are expected to have a different effect depending on the level of regime legitimacy (see section 4.1). For sake of simplicity, I develop one model for the relationship at the individual level and one for the country-level.

3.3.1 Individual level

At the individual level, the causal relationships are quite straight forward. Socio-structural factors, i.e. age and education, are assumed to have an independent effect on regime legitimacy, as well as one that goes through values and attitudes, as people's age and level of

education can be expected to influence their level of social capital and post-materialist values (Norris 2011: 131). Still, the effect of values and attitudes is not expected to be entirely the product of socio-structural factors, meaning that they also have an independent effect.

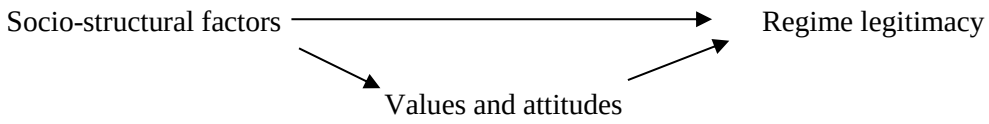

Figure 3.1: The causal relationship between individual-level variables and regime legitimacy

3.3.2 Country level

The question of causal directions and causal links becomes more difficult at the country-level. As discussed in section 2.3, there is obviously a relationship between the electoral democracy and Quality of Government, but it is difficult to say whether any one of them is a prerequisite for the other or not. Rothstein and Teorell (2008:166) claimed that one has to have democracy for there to be any Quality of Government, but Charron and Lapuente (2011) showed that authoritarian regimes can have Quality of Government as well. So even though there is a relationship and democracies generally have higher Quality of Government, this suggests that neither is a prerequisite for the other.

Another difficulty of causal relationship is the link between Quality of Government and economic performance. There is a relationship between the two, evident from the high correlation between the indicator used to measure Quality of Government in this thesis and GDP per capita (see appendix c). Richer countries have higher QoG, but is it high economic performance that creates QoG or the other way around? A lot of research on the links between public institutions and economic growth indicate that corruption in the public institutions, with weak protection of property rights and government contracts handed out based on contacts and bribes, is one of the strongest impediments to economic growth, and that countries who are able to do something about this despite being poor experiences higher economic growth (Holmberg et al. 2009; Rothstein 2003: 57). Other studies have shown that Quality of Government is a product of the political history of the country, and that countries who where at the same income level but experiences different political histories developed different bureaucratic qualities (La Porta et. al 1999). In all likelihood, there is a mutually reinforcing relationship, where economic growth as a result of well-functioning institutions

provides incentives for further improvement of public institutions (Holmberg et. al 2009: 139-141). But as research points to low quality public institutions as perhaps the biggest impediment to economic growth, I will assume that it is Quality of Government that creates economic growth and regime legitimacy, and that some of the effect of QoG might go through the economic performance of the regime.

A task even more difficult is to establish the relationship between democracy and economic performance. A wide-range of literature has been devoted to this, either arguing that democracy creates economic growth or economic growth leading the way to democracy, without providing any clear answer (for a discussion, see Przeworski and Limongi 1993). Fukuyama (2004: 37-38) argues that democracy makes it more likely to achieve growth, as it enables people to exchange bad leadership with (hopefully) better leadership. Despite the great variance in the quality of democratic leadership, the variance is much greater among authoritarian leaders. Many of them care more for enriching themselves and their allies than enriching the society, probably a reason why many authoritarian states remain poor. I will assume that electoral democracy influences economic growth, more than the other way around, though I am aware that this is open for discussion.

Ethnic fractionalization is obviously a feature of a country that changes relatively slowly and that it is difficult for a regime to do much about. As such, is not influenced by the other sources of legitimacy or by regime legitimacy itself.

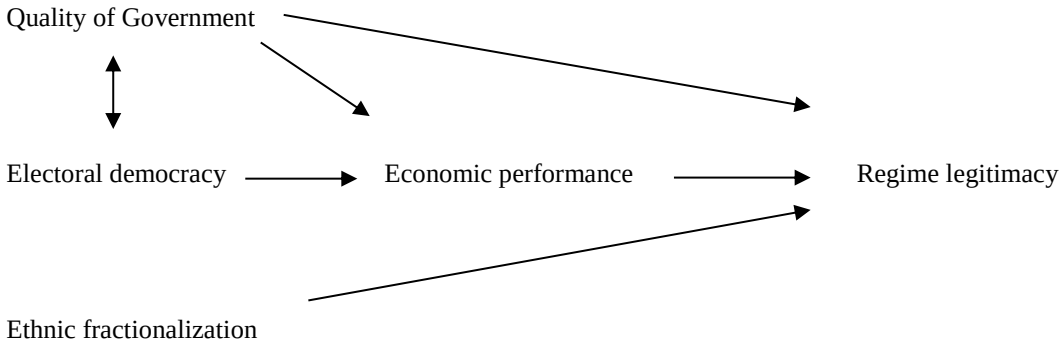

Figure 3.2: The causal relationship between country-level variables and regime legitimacy

3.4 Operationalization of the dependent variable – regime legitimacy

As explained before, I will use the distinction of regime support into three levels and test the effect of the sources of legitimacy on each one separately. As such, I will operationalize regime principles, regime performance and regime institutions into three separate dependent variables.

A challenge with WVS, which it shares with other global surveys, is that the items that are intended to measure what people think about the regime they are living in makes the assumption that the regime is democratic (World Values Survey 2005). This is understandable since most countries in the survey are democratic and democracy enjoys an unchallenged status globally today, but it presents a challenge when it comes to measuring system support in non-democratic regimes. I will discuss the different measures that are available in WVS and that have been used by others to measure regime support in *democratic* countries, to see whether they can be used to measure diffuse regime support in this study.

3.4.1 Support for regime principles

One commonly used measure of support for regime principles from WVS asks:

> ” How important is it for you to live in a country that is governed democratically? On this scale where 1 means it is “not at all important” and 10 means “absolutely important” what position would you choose?”[3]

As this dimension of regime support concerns whether citizens support the principles that underlie the regime, regardless of whether the regime is democratic or not, this item does not immediately seem as a valid measure. However, when measuring support for regime *principles* the question is not how democratic they are in *practice*, but whether they base their rule on any form of democratic principles and whether the citizens support these principles. If their rule is founded on an alternative set of values, like communism or religious laws, using citizens’ support for democratic governance as an indicator of support for regime principles becomes invalid. If not, then a strong support for democratic principles would be important for their legitimacy. Most of the regimes in the world today claims to be democratic and base

[3] Question 162 in World Values Survey 2005-2008 root version (World Values survey 2005)

their rule on some principles of democracy (Fukuyama 2004: 35) - whether they live up to these principles in practice is a question of support for regime performance, not regime principles.

There have been a lot of discussions about what this item actually measures, since people living in non-democratic regimes tend to show a surprisingly high support for democratic governance. Welzel (forthcoming) demonstrate that while there are hardly any cultural differences in the desire to live in a democracy, there are big cultural differences in *how* people *understand* democracy. It is much more common to have an authoritarian understanding of democracy, meaning understanding democracy as compatible with rule by a strong leader, the military or religious authorities, outside the Western world. One such example is that democracy in China and Vietnam is understood by most as government *for* the people, and not *by* the people (Shi 2008). Considering this, we understand how the Chinese and Vietnamese can profess an adherence to democratic principles and still find their regime legitimate, as this corresponds to the understanding of democracy that is advanced by the regime in China and Vietnam. Further, people living in Middle Eastern countries have shown a higher likelihood of understanding democracy as compatible with a regime where the army takes over if the elected government proves incompetent and where religious authorities interpret the law (Norris 2011: 157) , which lie close to how the regimes in the region operates.

So even though studies have shown a high support for democracy worldwide (Dalton et. al 2008), it is clear that this goes hand in hand with conflicting understandings of democracy in certain countries and regions, and that this to a certain degree corresponds to the forms of regime that dominate there.

It seems clear that I need to develop a measure of support for regime principles that takes this into consideration. Therefore, in addition to the already mentioned item I will also apply the following items that are available in WVS:

> ” I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country?” [4]
>
> Having a strong leader who does not have to bother with parliament and elections;
>
> Having experts, not government, make decisions according to what they think is best for the country;
>
> Having the army rule;
>
> Having a democratic political system”.

Norris (2011: 45) finds, through factor analysis, that these items taken together with the ”how important is it for you to live in a country that is governed democratically?”-item empirically form two dimensions. I do however find it more valid to use these items in one index, measuring an *exclusive* support for democratic values. One reason is that it lies closer to support for regime principles as I understand it in this thesis, though only for democratic countries. Another reason is that there is a great chance that Norris finds two dimensions because of a “response set” effect, meaning that some respondents uncritically agree to different (and often contradictory) statements presented to them (Hellevik 2002: 158). Using such item batteries helps us uncover those who say they agree with statements without necessarily having an opinion about it, due to a response set effect. Theoretically, supporting democratic values and rejecting forms of autocracy should be part of the same dimension, and no one should therefore agree to all four statements above.

I therefore create an additive index based on people’s expressed support for democratic governance and expressed disapproval of different forms of authoritarian rule. This means that respondents who express full support for democratic governing (meaning expressing that it is important to live in a country that is being governed democratically and that having a democratic political system is a good way of governing the country), but also embrace non-democratic governing (meaning expressing that having a strong leader, experts or the army govern the country is a good way of governing the country) gets a medium score, and only

[4] Questions 148 to 151 in World Values Survey 2005-2008 root version (World Values survey 2005)

those who support democracy *exclusively* gets a high score. The index is standardized as a 0 to 10 index (the scoring of countries can be found in appendix a).

Obviously, this item is not a valid measure of support for regime principles in authoritarian regimes, where a strong and exclusive support for democracy should undermine their rule and not strengthen it (Welzel forthcoming). It might therefore be better to exclude authoritarian regimes in the analysis of this particular dependent variable. As most of the countries in the World Values data set are in some way democratic it will not reduce the number of countries in the study too much, but it would limit the inference we are able to draw from the data. Freedom House (2012) , who produces a recognized measure of freedom and democracy around the world, classifies six countries in the World Values Dataset as "not-free" in 2005, meaning at they are not democratic. I assume at all countries classified as "free" or "partly-free" have some form of democratic values as their governing principles, though some might fall short of these principles in practice. This means that China, Iran, Iraq, Egypt, Rwanda and Vietnam will be excluded this particular analysis (section 4.2).

3.4.2 Support for regime performance

These two items taken from WVS have been used by Pippa Norris (2011: 45) to measure support for regime performance:

> "And how democratically is this country being governed today? Again using a scale from 1 to 10, where 1 means that it is "not at all democratic" and 10 means that it is "completely democratic," what position would you choose?"[5]
>
> "How much respect is there for Human Rights nowadays in this country?". Do you feel there is[6]:
>
> 1. A great deal of respect for individual human rights
> 2. Fairly much respect
> 3. Not much respect
> 4. No respect at all

[5] Question 163 in World Values Survey 2005-2008 root version (World Values survey 2005)
[6] Question 164 in World Values Survey 2005-2008 root version (World Values survey 2005)

Again, it might seem wrong to use an item asking about how democratically a country is being governed to measure support for regime principles in non-democratic states, as they cannot be expected to govern democratically. However, given that most people in any regime in the world now hold democracy as something desirable while they might understand different things by it (Welzel forthcoming), it seems probable that people will evaluate their regime according to their own understanding of democracy. Therefore it should work to measure people's support for the performance of the regime, relative to the expectations people hold, in non-democratic states as well. I will, however, test whether removing non-democratic regimes while analyzing this dependent variable will influence the results in any way.

Similarly, the other item asks about protection of human rights, which one can argue is not something one expects authoritarian regimes to respect, as the set of political rights and liberties that democracy rests upon are a loss less common in authoritarian regimes (Dahl 1997: 459-463). Still, I would argue that just like democracy, human rights is now a widely recognized concept that all people expect their regime to respect and advance, though they might emphasize different rights or interpret them differently. The extent to which people think the regime respects their human rights should therefore work as a measure of support for regime performance in non-democratic regimes as well. Norris (2011: 45) has demonstrated that these two survey items together form a dimension that taps people's evaluation of the performance of the regime. As such, an additive index based on these two items, standardized from 0 to 10, should be a good measure of support for regime performance.

3.4.3 Support for regime institutions

Finding indicators for measuring support for regime institutions is a bit easier, as the available items does not presuppose democratic governance, only that the relevant institutions exists. WVS asks the respondents to rate their confidence in many different institutions in society, many of whom are part of the regime. The respondent can reply that they have "a great deal" of confidence, "quite a lot", "not so much" or "none at all" (World Values Survey 2005). Norris (2011: 45) showed through factor analysis based on WVS that confidence in parliament, parties, government, courts, civil service, police and armed forces form one dimension, which is assumed to measure support for regime institutions. However, I find

excluding confidence in political parties from the index a more theoretically sound operationalization of support for regime institutions, as parties are very closely associated with political actors , and therefore more likely to measure specific system support. Political parties are not part of the regime in the same way as public institutions are. I therefore created an additive index based on the items tapping confidence in parliament, government, courts, civil service, police and armed forces[7], standardized as a 0 to 10 index.

3.4.4 Reflections on the scoring and equivalence

All three variables seem to produce some surprising results (tables showing country mean on each of the dependent variables can be found in appendix a), with Vietnam and China showing some of the highest scores, and other countries with low levels of development and democracy also showing high scores. This suggests that there could be some cultural differences that influence the scoring, as discussed in section 3.2. Since the measures then does not satisfy full score equivalence, it is difficult to compare the results across countries without knowing how large this influence is (Van de Vijer 2003: 153).

As discussed there are some challenges with the indicators presupposing democracy and what people in non-democratic regimes actually understand by democracy, which could explain why non-democratic countries show a high score. However, where they show the highest score compared to democracies is on support for regime institutions, where the indicators do not presuppose a democratic regime. This suggests either a country-specific way of answering survey questions about support for their regime, or that there is an actual high level of diffuse regime support in some non-democratic states. Even though I am not able to rule out the influence of such cultural factors, I think it would also be wrong to dismiss these results as entirely flawed simply because they do not conform to our expectations. There could be reasons, good or bad, for f. ex Vietnamese to support for their regime. Therefore, I deem it better to use these scores while keeping in mind the possible influence of cultural differences on the scoring when discussing the results.

[7] Questions 132, 136, 137, 138, 140 and 141 in World Values Survey 2005-2008 root version (World Values survey 2005)

3.5 Operationalization of independent variables

The independent variables in this analysis are represented by the different theoretical sources of legitimacy presented in the previous chapter. I start by operationalizing the two main independent variables in this analysis - Quality of Government and electoral democracy – before I discuss the operationalization of the other sources of legitimacy.

3.5.1 Quality of Government

Quality of Government is defined as an impartial treatment of citizens on the output-side of the political system, meaning that institutions such as the bureaucracy, the courts, the police, etc. treat people as they are supposed to do according to the law and irrespective of who they are, unless the law requires them to do so (Rothstein and Teorell 2008: 170). Researchers at The Quality of Government Institute in Gothenburg have created a Quality of Government index, which is again composed of three indexes created by International Country Risk Guide, measuring corruption, law and order and bureaucratic quality, which are thought to cover the different aspects of Quality of Government. These indexes are constructed through expert-evaluations based on reports, statistics and different news sources, and intended to help foreign investors assess the risk involved when investing in a country (International Country Risk Guide 2012).

The *corruption* indicator measures political corruption in many forms, such as patronage, nepotism, job reservations, secret party funding and suspiciously close ties between politician and business, as well as how common it is to have to pay bribes when doing business in the country (Teorell et al 2010: 53).

The *law and order* indicator measures the strength and impartiality of the legal system, as well as popular observance of the law (Teorell et al 2010:54).

Bureaucratic quality is measured by bureaucracy's capacity to govern without distorting government policies – meaning that they implement the policies as they are intended. It also takes into consideration its capacity to govern effectively and without interruptions in public services (Teorell et al 2010:54).

These three indexes together form a Quality of Government index that range from 0-10, where 10 indicates a high level of Quality of Government (the scoring of countries can be

found in appendix b). The data in the index is taken from 2002, as I expect there to be a lag in the effect (Teorell et al 2010:53). Many other possible indicators of Quality of Government or Good Governance are available, such as Bertelsmann Transformation Index, World Bank Governance Indicators, Corruption Perceptions Index or the Kaufmann-Kraay Worldwide Governance Indicators. These measures are either too broad or too narrow in capturing the meaning contained in the Quality of Government concept. As this concerns impartial treatment on the output-side of the political system, it is important to capture different forms of discrimination in implementation of public policy while not including elements that relate to other parts of the political system. The Quality of Government index therefore seems to me as the most valid measure.

3.5.2 Electoral democracy

Democracies are expected to respect a wide range of human rights (Dahl 1997: 460**)**, some of which places restrictions on how a state can behave on the output-side in addition to the input-side – like the right to life, education, private property. Respect for human rights is an important characteristic of democratic societies, and shows that democracy can have wide-reaching consequences for how a regime operates. But as explained earlier, my objective is to test the importance of electoral democracy – a narrow understanding of democracy as impartial treatment on the input-side of the political system - relative to that of Quality of Governance. If I used a broader definition of democracy, I would risk conflating the two concepts. Robert Dahl's concept "polyarchy" is a minimalist definition of democracy that corresponds to my definition of electoral democracy. It is focused only on the rights and "institutions" needed to secure a democratic process. Polyarchy means having open and inclusive processes of deciding policies, and exists if these seven "institutions" are present (Dahl 1997: 93-95):

1. Control over government decisions about policy is constitutionally vested in elected officials.

2. Elected officials are chosen and peacefully removed in relatively frequent and fairly conducted elections in which coercion is comparatively uncommon.

3. Practically all adults have the right to vote in these elections.

4. Practically all adults have the right to run for elective offices in the government.

5. Citizens have the right to express themselves on political matters broadly defined, without the danger of severe punishment.

6. Citizens also have access to alternative sources of information that are not monopolized by the government or any other single group.

7. Citizens have the right to form and join autonomous associations, including political associations such as political parties and interest groups.

Freedom House has since 1972 graded freedom and democracy in countries all over the world, by applying a definition of democracy that lies close to Dahl's definition of polyarchy. Their scoring of countries is based on a two-piece item based on the degree of civil liberties and political rights. Civil liberties are measured through the degree of freedom of expression and belief, associational and organizational rights and absence of interference by the state into personal matters. Political rights are measured by people's access to participate freely in the political process, right to vote freely in free elections with distinct alternatives, right to compete for public office, right to join political parties and right to elect representatives that can actually decide public policies and who are accountable to the electorate (Teorell et al 2010: 42).

Freedom House is generally seen as being a good measure of electoral democracy, but it has been criticized for including components that goes beyond the "institutions" needed to meet a minimum standard of democratic process and that therefore are irrelevant in this case, such as free enterprise (Hadenius and Teorell 2005: 16). A narrower conceptualization is applied by Polity, who measure democracy through the presence of institutions and procedures that ensure that citizens can express their preferences about policies and leaders and the existence of institutionalized constraints on the exercise of power by the executive branch (Teorell et al 2010: 57).

Hadenius and Teorell (2005) hold Freedom House and Polity to be the best alternative of all the available democracy indexes – mainly because they have the most valid conceptualization and offer continuous scales of democracy instead of a dichotomy. They recommend using a combined measure of Freedom House and Polity, which they demonstrate score better than each of them separately when tested against their reference score, which is based on a

conceptualization that lie closer to Dahl's concept of polyarchy. Since the combined score seems to be most valid way of measuring polyarchy, I will use this index in the analysis (scoring of countries on this index can be found in appendix b). The data is from the years leading up to the survey period starting in 2005, as I expect this effect also to be lagged and because the available time of measurement varies from country to country (Teorell et al 2010: 45).

3.5.3 Other independent variables

The other independent variables to be tested are:

Socio-structural variables: ethnic fractionalization, education and age.

Values and attitudes*:* post-material values and social capital

Economic performance: economic growth and economic distribution.

For those who are characteristics of individuals, I will use items available in World Values Survey (2005). Items measuring characteristics of countries are taken from a variety of sources, all made available in the Quality of Government dataset (Teorell et al 2010).

Individual-level variables

To measure *education,* I will use a question from WVS where the respondent is asked to rank their highest level of completed education, with a 9-point scale starting at having no formal education at all and ending at having completed a university degree[8]. Now, this measure is obviously not on an interval scale, since it does not ask the number of years of education completed and the "distance" between the different levels of education in the variable is not necessarily the same. However, what education is thought to represent here is the cognitive

[8] Question 238 in World Values Survey 2005-2008 root version (World Values survey 2005):
What is the highest educational level that you have attained? [NOTE: if respondent indicates to be a student, code highest level s/he expects to complete]:
1 No formal education
2 Incomplete primary school
3 Complete primary school
4 Incomplete secondary school: technical/vocational type
5 Complete secondary school: technical/vocational type
6 Incomplete secondary: university-preparatory type
7 Complete secondary: university-preparatory type
8 Some university-level education, without degree
9 University-level education, with degree

capacity of the respondent, which is expected to rise with higher levels of formal education. So though this measure is in no way ideal, I deem that this scale is close enough to give an interval representation of different levels of cognitive capacity.

Age is measured by an item in WVS that asks respondents for their age[9]. I divided the age of the respondent by 10, so that an increase in the age-variable by one scale-point will correspond to an increase in age of 10 years. This is to reduce the number of decimals in the parameter estimate, and does not alter the interpretation in any way.

Two commonly used measures of *social capital* are available in WVS[10]. Both of them measure the extent to which the respondent thinks that people in general can be trusted, which is how social capital is usually measured (Newton 1999). One of them uses a 10-point scale to rate how much people can be trusted while the other is a simple "yes" or "no" dichotomy. Ideally I should use both of them, as an index based on two indicators makes up a more robust measure than to use just one question. However, it is difficult to use both the dichotomous variable and the 10-point scale in one index without loosing information (Eikemo and Clausen 2007: 38). Since the 10-point item allows for more refined answers and therefore contains more information, it would normally be recommended that I use it. Unfortunately, this item was not included in the survey in many countries and therefore has a high number of units with missing (11%). Because of this I find it better to use the dichotomous item.

Two indexes have been created in WVS that measure *post-materialist values*. One is based on a four-item battery that has been included in subsequent surveys and used by Ronald Inglehart for many years. This original battery has been supplemented with two other batteries, making

[9] Question 237 in World Values Survey 2005-2008 root version (World Values survey 2005):
This means you are ____ years old

[10] Question 23 World Values Survey 2005-2008 root version (World Values survey 2005):
Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?
1 Most people can be trusted.
2 Need to be very careful.

Question 47 World Values Survey 2005-2008 root version (World Values survey 2005):
Do you think most people would try to take advantage of you if they got a chance, or would they try to be fair? Please show your response on this card, where 1 means that "people would try to take advantage of you," and 10 means that "people would try to be fair" (code one number):

People would try to take advantage of you									People would try to be fair
1	2	3	4	5	6	7	8	9	10

it a total of twelve questions measuring post-materialist values (Inglehart 1990: 74). The batteries ask the respondents to rate their priorities for the society, where both their first and second choice is counted. If they emphasize civil and political rights and personal development over stability, economic growth and security, then they will score as post-materialists (Held et al 2009:57-58). Ideally, I should use an index based on all the twelve questions as this makes for a more refined measure. However, many countries in the survey only included the original four-item battery[11]. Therefore, I will loose a lot of units in the analysis if I apply this measure. I will stick with the original measure that is established as a valid measure of material and post-materialist values. It is coded from 0-2 where 0 is given for those with pure materialist values, 1 for those with "mixed" values and 2 for those with post-materialist values.

Country-level variables

To measure *ethnic fractionalization*, I will use Fearon's much applied indicator. He has identified 822 ethnic and "ethno-religious" groups in 160 countries, which comprised of at least 1% of the country's population. The indicator ranges from 0 for totally homogenous societies to 10 for highly fractionalized societies, based on the probability that two randomly selected people in a country belong to different groups (Teorell et al 2010: 91). The indicator I have available is based on data from 1990. Using such old data could be problematic, but I assume it's safe given that the composition of different ethnic groups in a society does not change so quickly.

When it comes to measuring the effect of *economic performance*, it is very common to use GDP per capita. A problem with this measure is that it tends to explain too much. Gilley calls it "the most blindingly descriptive variable in the social sciences" (2009b: 33), and that though it shows a high correlation with regime legitimacy, this effect goes through other variables. What this means is that a high level of national income is important in creating other factors that produce legitimacy (Gilley 2009b: 33-34). This is evident from the high

[11] Variables in WVS 2005 that are included in the four-item battery measuring material/post-material values:
V71. If you had to choose, which one of the things on this card would you say is most important?
V72. And which would be the next most important? (Code one answer only under "second choice"):

	First choice	Second choice
Maintaining order in the nation	1	1
Giving people more say in important government decisions	2	2
Fighting rising prices	3	3
Protecting freedom of speech	4	4

correlation GDP per capita shows with the sources of legitimacy (see appendix c). The correlation also illustrates another problem with including GDP per capita as an indicator of economic performance, namely that it creates muliticollinearity.

In chapter 2, I argued in line with Easton (1965) that *economic growth* will have to be sustained over a long period of time to create regime legitimacy. Therefore I will use the average annual growth in GDP over the last 5 and 10 years leading up to the survey year of 2005 (World Bank 2012a) as a measure of economic performance. I also argued that *economic distribution* should be important, because legitimacy is thought to derive from a conviction that the regime serves the common good (Easton 1965: 275-277), I will use the Gini index as a measure in equal/unequal distribution of wealth. The Gini index measures inequality in income distribution, by estimating the share of total national income that different income groups in society holds. 0 represents perfect equality while 10 represents a totally unequal distribution. The data is also taken from the World Bank (2012b). The year of scoring will vary a bit from country to country as the index is not available for all countries every year. All the scores will be from one year between 2000 and 2005, and as close to 2005 as is available. For those countries where no data is available from the World Bank from this period, I will use the Gini score from 1996 available from the Quality of Government dataset (Teorell et al 2010: 88).

3.6 Multi-level analysis

Multi-level analysis is recommended when we are dealing with structured data, meaning data where respondents are divided into different groups that can be expected to influence their response. This creates a dependency of the observations that constitutes a violation of the requirements of ordinary regression models, as they expect all observations to be independent of each other. Not controlling for this will underestimate the standard deviations which again will lead us to overrate the certainty of our findings. Multi-level analysis controls for this dependency and therefore gives more correct estimates when we are using cross-country datasets like WVS (Strabac 2007: 174). In addition to that it allows us to test the effect of variables on the individual-level and society-level simultaneously, which is highly relevant for this study.

Theoretically, it is safe to assume that what makes someone support their regime vary between countries and that the analysis therefore should take the effect of characteristics of the countries into consideration. The hierarchical structure of the data is confirmed by calculating the Intra-Class Correlation (ICC) of the dependent variables. ICC is estimated by decomposing the total variance of the dependent variables into two components; one for the individual level and one for the country level. The variance belonging to level 2 is divided by the total variance to see how much of the total variance that is explained by characteristics of the countries (Strabac 2007: 181). None of the dependent variables have an ICC under 17%, which means that a substantial amount of the variance to be explained belong to level 2 and that multi-level analysis is suitable for statistical reasons as well. Usually, if the ICC is above 5% it is thought to be more suitable to use multi-level analysis than ordinary linear regressions (Christophersen 2009: 231).

Table 3.1: Intra-class correlations

Dependent Variable	Residual, level 1	Intercept, level 2	Total variance	ICC
Regime principles	2.357	.513	2.870	.179
Regime performance	4.683	1.398	6.081	.230
Regime institutions	4.000	1.092	5.092	.215

When applying multi-level analysis, we also do not have to assume that the average effect of a variable will be the same in each country. By including variance estimates, in a so called random slope or random effects model, it is possible to estimate how much variance there is in the average effect between different countries, giving a more realistic presentation of the results (Bickel 2007: 125-126). This is also theoretically interesting, since there are good reasons to expect the effect of some variables to differ depending on the country (see section 4). Models where the slope of the parameter estimates is not allowed to vary will be referred to as random intercept models.

The specific estimation method used in this analysis is called Restricted Maximum Likelihood (REML). Maximum Likelihood (ML) estimation provides us with the parameters estimates and intercepts that, given our data, are most likely to be correct. REML is based on ML, but has the advantage over ML that it takes into consideration the number of parameters in the estimated model, something that reduces the risk of bias in the regressions coefficient when the sample is small (Bickel 2007: 114-119).

There should be at least 10 units per variable included at the country-level to ensure enough variance on the variable (Strabac 2007: 186). 57 countries are included in WVS, which is sufficient to use multi-level analysis, but still it means that no more than four or five level 2 variables can be included in this analysis at the same time, depending on how many countries are included at that stage. The relative low number of level-2 units will also make it more difficult to get significant results. This will increase the chance of committing a type 2 error, meaning that we assume that no relationship between the independent and dependent variables exists when it actually exists in reality (Hellevik 2002: 389). This suggests that we should not use the commonly applied 5%-limit blindly when discussing the significance of the results at level 2, but also discuss results that are within the 10%-limit (Strabac 2007: 187).

There are a number of other statistical requirements that should be fulfilled when performing a multi-level analysis, similar to those that apply for ordinary linear regression models. These are accounted for in appendix c.

3.6.1 Centering of variables

It is common practice to center all independent variables in multi-level analysis, because it orients the study towards more relevant values (the mean value) and the parameter estimates becomes easier to interpret. The parameter estimates will then function as deviation scores, showing change in the value on the dependent variable for units that deviate with one scale point from the mean value on the independent variable. Further, it reduces the risk of multicollinearity caused by interaction terms (Bickel 2007: 134-137), which is highly relevant in this study.

In multi-level analysis, one has the choice of centering within cluster (CWC) or centering at the grand mean (CGM). CWC means that the value of each unit is subtracted from the mean value of the cluster the unit belongs to (in my case the country), making the mean value in each country on the centered variable 0. CWC has some advantages over CGM by removing the between-cluster variation in the level-1 parameters, and is therefore recommended if the primary interest is on the effect of individual-level parameters or when analyzing panel data (Enders and Tofighi 2007: 126-127). CGM means to subtract the mean value of the entire sample from the units' values, regardless of clusters or countries. Then, the mean value of the entire sample would be 0, but not necessarily within clusters. It is generally though to give the

parameter estimates a more intuitive interpretation, and is recommended if one is primarily interested in the effects of county-level variables (Enders and Tofighi 2007: 128-130). Since the main focus of this thesis is on the effect of country-level variables (Quality of Government and electoral democracy), I will center at the grand mean to make the results easier to interpret.

3.7 Missing values

There are many units in the dataset that lack values on some of the variables that will be used in the analysis. This is due both to the respondents' lack of response and the fact that some of the questions were omitted in some of the countries – either because they carried out a reduced survey or because the authorities demanded that some questions were omitted (World Values Survey 2012b). This can influence the results in themselves if some groups have a systematic tendency to be missing (Christophersen 2009: 164). In some developing countries there were reported problems with getting some of the respondents to understand the questions that might also have contributed to the high number of missing values (World Values Survey 2012b). As these problems probably have to do with their level of educations, this increases the change that there is a systematic difference in missing values that could affect the results of the analysis. Therefore I will now account for the missing values on the relevant variables in this analysis, and try to see if this can affect the results in any way.

3.7.1 Missing values on the independent variables

Two of the independent variables at the individual level show a somewhat high number of missing values. One common way of remedying this is to assign these units with a valid value, f. ex the mean value, as it does not influence the estimation of the regressions coefficients. It does, however, influence the significance testing by making the standard error smaller, and hence making it easier to get significant results (Christophersen 2009: 164). As such, since the number of missing is not that high I deem it better to exclude these units from the analysis than to assign them the mean value and possibly displaying the results as more certain than they are.

Table 3.2: Number of units with valid or missing values on individual level independent variables

	Education	Social capital	Age	Post-materialist values
Valid	82403	79801	82724	77659
Missing	589	3191	268	5333
% missing	.7 %	3.8 %	.3 %	6.4 %

When it comes to missing on the national-level independent variables, there are a few countries where we lack data on some of the variables. This will reduce the number of level-2 units in the analysis, and therefore also the number of level-2 variables I can include in the analysis at the same time. There are a total of 14 countries where we lack data on one or more of the relevant country-level variables (see appendix d), reducing the number for level-2 units in the analyses from 57 to 43. Though this is unfortunate, especially because it reduces the number of underdeveloped, non-democratic countries in the analysis, it is still an acceptable number to conduct a multi-level analysis.

3.7.2 Missing values on the dependent variables

There are a substantial number of units with missing values on the dependent variables as well. Since I am creating indexes based on these variables, I will include units as long as they have a valid value on at least half of the variables in the index. If not, then they will be excluded from the part of the analysis where this index is used, as is the recommended action (Christophersen 2009: 164-166). Those who are included but miss value on one of the included variables will be given a value based on their mean value on the variables where they do have a valid value.

On the support for regime principles variable, units with only one missing on the three variables measuring support for authoritarian forms of rule, and only one on the variables measuring support for democratic governance, was included. On the support for regime performance variable, I included units with a valid value on one of the two variables, while a maximum of two missing values was allowed on the four items making up the support for regime principles index. The number of units with missing is still high. Some of this is caused by the questions being omitted from the survey in some countries, and since we therefore will

have missing on *all* the units from these countries, it should reduce the likelihood that there are systematic differences that could distort the results. It will, however, also reduce the number of level 2-units in different parts of the analysis.

Table 3.3: Number of units with valid or missing values on regime support indexes

	Support for regime principles	Support for regime performance	Support for regime institutions
Valid	72076	76199	74929
Missing	10916	6793	8063
% missing	13 %	8 %	10 %

3.7.3 Correlations

If there is a systematic relationship between those with missing values on the independent variables and with valid or missing values on the dependent variables, it could mean that the results of the study misrepresents the relationship between these variables since the units with missing values are systematically different than those with valid value. To check this we can look at their correlations (Christophersen 2009: 165-166). There are only very weak correlations between units with missing on the independent variables and with valid or missing value on the dependent variables (see appendix e for correlation tables). This shows that the missing values on the independent variables are not systematically related to any value on the dependent variables, and that it therefore does not influence the results of the analysis.

4 The Effects of the Legitimacy Sources

In order to answer the research question – what are the most important factors in creating regime legitimacy? – I will now test the different sources of legitimacy in a series of multi-level analyses. They will be tested on each of the different levels of regime legitimacy - *support for regime principles, regime performance and regime institutions* - separately, in order to uncover how the different sources of legitimacy might have a different effect on legitimacy depending on what level we are looking at. I have grouped the independent variables into individual-level variables and country-level variables.

The first analysis is the most diffuse level of regime legitimacy, regime principles, as dependent variable, before I continue with the more specific ones. Each analysis presents two tables. The first is a so-called random intercept model, where only the intercept varies between countries, i.e. that the mean value on the dependent variable is different from country to country. This means that the effects of the independent variables are assumed to be the same in each country, and this part of the analysis therefore focuses on the *average* effect of the independent variables. This assumption is challenged in the second table in each analysis, where the effects of some of the independent variables where the hypotheses suggest that the effects are different across countries are allowed to vary across countries. These tables, so-called random slope models, also contain interactions between different independent variables where the hypotheses proscribe that the effect of one of them is dependent on a unit's value on another variable (Eikemo and Clausen 2007: 68). I will summarize the results for each independent variable, as well as for all of them taken together, to provide answers to the hypotheses.

Based on what I discussed with the regard to the different sources of legitimacy in chapter 2, I will now develop different hypotheses that are to be tested, to give a clearer picture of what we can expect to find based on the different theories.

4.1 Sources of regime legitimacy – hypotheses

4.1.1 Quality of Government vs. electoral democracy

As presented in the introduction, the main focus of this thesis is to test the relative importance of electoral democracy and Quality of Government in creating regime legitimacy. This thesis draws inspiration from Bo Rothstein (2009) who hypothesized that Quality of Government is more important in creating political legitimacy because impartial treatment on the output-side of the political system has a more direct influence on people's lives than impartial treatment on the input-side (i.e. electoral democracy). Impartial regime institutions should increase both their generation of outputs as well as citizens confidence and approval of the process leading up to that output, and through that create regime legitimacy. I expect the effect to be the same on all the dimensions of regime legitimacy. Quality of Government is thought to be especially important for the legitimacy in ethnically divided societies, since corruption and discrimination is likely to get an extra dimension by following ethnic lines and through that undermine support for the regime even more.

Electoral democracy and is often thought of as a key factor in generating legitimacy, because it means that the regime to a greater extent will reflect the will of the people and advance a policy that a majority of the people want. And those who find themselves in the minority will have a chance of getting their will through in the next election (Rothstein 2009: 314-315). Even though Rothstein claims that electoral democracy is highly overrated as a source of legitimacy, I do not expected it to be without any effect on regime legitimacy, since this kind of impartial treatment on the input-side of the political system should increase people's support for the regime, just as impartial treatment on the output-side. However, the effect of electoral democracy is expected to be weaker than that of Quality of Government. That gives us the following hypotheses about Quality of Government and electoral democracy:

H1a: Both Quality of Government and electoral democracy has a positive effect on all dimensions of regime legitimacy

H1b: The effect of Quality of Government is stronger in societies with a high degree of ethnic fractionalization

H2: Quality of Government has a stronger effect than electoral democracy on all dimensions of regime legitimacy

4.1.2 Other independent variables

Socio-structural variables

As presented in section 2.2.4, the socio-structural factors that I will test are ethnic fractionalization, age and education. Societies with a high level of ethnic fractionalization are commonly expected to have a weaker shared identity and weaker shared norms, perhaps even a weaker sense of a common good, which again makes it more difficult for the regime to create legitimacy for itself. The question of shared norms and identity is thought to be closely related to the most diffuse levels of system support (Easton 1965: 319). Therefore I expect ethnic fractionalization to have a stronger negative effect on support for regime principles than on the other levels of regime legitimacy.

H3: High level of ethnic fractionalization will have a negative effect on all dimensions of regime legitimacy, with the effect being stronger on the most diffuse level

As discussed earlier, higher levels of education is believed to increase people's support for democratic values and ideals, but also increase their demands and expectations towards the performance of democratic regimes. This means that, in democratic countries, education should increase support for regime principles, but undermine the support for regime performance and regime institutions. This expectation was confirmed by Norris (2011: 139). When it comes to non-democratic states however, it is not entirely clear what we can expect. One possibility is that education works to reinforce support for the regime, by socializing the citizens in the values of the regime whether they are democratic of not. The other option is that education has the same effect as it has in democratic states, increasing support for and expectations to democratic governance, and that higher levels of education therefore will undermine support for the regime on all levels in non-democratic states. I find this last proposition more likely, especially if we consider how urban, educated (often unemployed) young people have been instrumental in the uprisings against the authoritarian regimes in the Arab world that we have seen over the last couple of years (Anderson 2011). This indicates that there can be differences in the effect of education across countries, and that these

differences are related to the degree of democracy in the country. To summarize, this gives the following hypothesis about the effect of education on regime legitimacy:

H4a: In democratic regimes, higher levels of education will have a positive effect on support for regime principles, and a negative effect on support for regime performance and regime institutions

H4b: In non-democratic states, the effect of education will be negative on all dimensions of regime legitimacy

As mentioned, Norris (2011: 133-139) brought into question modernization theory's assumption about the effect of age, when she found age to increase both support for democratic governing principles as well as satisfaction with how democracy operates. One possible explanation for this finding is that since this value change happened in the Western World the 1960s and 70s, which is now 50 years ago, the difference between the values of older and younger generations has been wiped out. The effect of age is therefore no longer a question of differences in values and would have to be explained by something else. Another possibility is that by testing the effect of age on many different types of regimes simultaneously, without controlling for a relationship to the type of regime, Norris might have obscured the real effect of age. If, due to the intergenerational value change, younger people generally have a stronger demand for democratic governance, but also expect more from its institutions and performance, then it should give us the following hypotheses:

H5a: In democratic regimes, older people have less support for regime principles and higher support for regime performance and regime institutions than younger people

H5b: In non-democratic regimes, older people have a higher level of support on all dimensions of regime legitimacy than younger people

Values and attitudes

When it comes to values and attitudes, I focused on Ronald Inglehart's (1999) theory of how post-materialist values influence how individuals view the regime. Post-materialist values are expected to increase people's emphasis on living in a democratic society, but also their expectations to the regime. This indicates a different effect for the different dimensions of regime legitimacy, where they have a positive effect on the regime principles but less positive

and perhaps even negative one the more specific levels of regime support. Norris' (2011: 127, 134-135) finding that people with high levels of post-materialist values are more satisfied with democratic performance could be a result of regimes in countries with high levels of post-materialist values performing better. Though Norris controls the effect for the effect of Human Development Index, which measures development by life expectancy at birth, educational achievement and GDP per capita (Norris 2011: 247), this leaves many different aspects of government performance uncontrolled for. Inglehart and Welzel (2005) have demonstrated that post-materialist values "deepens" democracies and improves their democratic performance by making them more responsive to people's needs and show greater respect for their rights. Since post-materialist values increases demands for democratic governance the effect should depend on the degree of democracy in a particular country, and its effect on regime legitimacy in non-democratic states should therefore be negative instead of positive.

H6a: In democratic regimes, post-materialist values has a positive effect on support for regime principles and support for regime performance, and a negative effect on support for regime institutions

H6b: The effect of post-materialist values is negative on all dimensions of regime legitimacy in non-democratic regimes

As discussed in section 2.2.1, recent studies (Norris 2011, Olsen 2008) have been able to uncover a relationship between social capital and all the dimensions of regime legitimacy. Olsen (2008) demonstrated that high levels of social trust increases the trust in regime institutions, while Norris (2011: 136-139) showed that it has a positive effect on both support for regime performance and support for regime principles. The effect was stronger on support for regime performance, suggesting a possible connection to the question of diffuse and specific support – that it increases regime support more on the more specific levels of regime support than it does for the most diffuse[12]. Based on this, I expect the following relationship between social capital and regime legitimacy.

[12] These levels are more specific than regime principles on the continuum from support for the political community to support for political actors, but they are still understood as being diffuse levels of political support.

H7a: Social capital has a positive effect on all dimensions of regime legitimacy

H7b: The effect of social capital is stronger on the most specific dimensions of regime legitimacy (regime institutions and regime performance) than it is on the most diffuse level (regime principles)

Economic performance and distribution

As mentioned earlier, economic development is believed to be one of the key factors in creating regime legitimacy. The theory suggests that a high level of economic development has a positive effect on regime legitimacy, because it enables it to produce more material benefits (Gilley 2009a: 35), though this is expected to be dependent on how long it is sustained and how it is distributed (Easton 1965: 267-277). By testing the effect of sustained economic growth, we can see the effect of an improvement of the economic conditions compared to how they where. Sustained economic growth should increase regime support generally, but since economic performance is a specific output that needs to be sustained over time to create diffuse support, I expect the effect to be strongest on the most specific levels of regime support. Further, the effect on the most diffuse levels of regime support should be larger the longer the economic growth is sustained. In addition, Easton's (1965: 275-277) claim that outputs has to be distributed according to a concept common good to generate diffuse system support indicates that low income inequality will have a positive effect on regime legitimacy. That gives us the following hypotheses:

H8a: Economic growth has a positive effect on all dimensions of regime legitimacy,

H8b: The effect of economic growth is stronger on the most specific dimensions of regime legitimacy than on the more diffuse dimensions

H8c: The effect on regime principles (the most diffuse dimension of regime legitimacy) will be stronger the longer economic growth is sustained

H8d: An equal distribution of income has a positive effect on all dimensions of regime legitimacy, and strengthens the effect of economic growth

4.2 The effects on support for regime principles

As mentioned, I will start by analyzing the effects on the most diffuse level of regime legitimacy: support for regime principles. This level of regime support concerns whether the citizens support the values and norms that the regime bases its rule upon – there has to be a congruence between the values of the citizens and the values of the regime for the regime to be legitimate (Beetham 1991). As this is the most diffuse level of regime support, it can be seen as the most important for the legitimacy of the regime (Easton 1975).

Table 4.1: Parameter estimates for multi-level models (REML) on Support for regime principles, random intercept. N = 49 270, standard errors in parenthesis

Individual-level variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Intercept	7.057 (.103)***	7.054 (.099)***	6.902 (.112)***	6.941 (.096)***	6.931 (.096)***	6.949 (.096)***
Age	.084 (.005)***	.085 (.005)***	.085 (.005)***	.084 (.005)***	.084 (.005)***	.084 (.005)***
Education	.129 (.003)***	.123 (.003)***	.122 (.003)***	.122 (.003)***	.122 (.003)***	.122 (.003)***
Post-Materialist values		.111 (.012)***	.111 (.012)***	.111 (.012)***	.111 (.012)***	.110 (.012)***
Social capital		.178 (.017)***	.177 (.017)***	.176 (.017)***	.176 (.017)***	.177 (.017)***
Country-level variables						
Electoral democracy			.123 (.049)**	.007 (.051)	.019 (.052)	-.020 (.050)
Quality of Government				.181 (.045)***	.199 (.047)***	.202 (.044)***
Ethnic fractionalization					.044 (.038)	.066 (.037)*
Economic growth						-.123 (.047)**
Variance components						
Individual-level	2.284 (.015)	2.274 (.014)	2.274 (.014)	2.274 (.014)	2.274 (.014)	2.274 (.014)
Country-level	.454 (.100)	.420 (.092)	.373 (.083)	.271 (.061)	.269 (.061)	.234 (.054)
Predicted variance	4.60	6.13	7.77	11.32	11.39	12.61
-2LL	181788.5	181587.3	181585.6	181575.9	181579.3	181577.1

* p < .10. ** p < .05. *** p < .01

Table 4.1 shows the effects of all the independent variables on support for regime principles[13]. The independent variables are separated into individual level-variables and country-level variables, as they are interpreted differently and most easily compared with each other. The variables are introduced in the order that the causal model suggests, except for with the country-level variables, where I start by introducing electoral democracy, before I introduce Quality of Government, and then ethnic fractionalization. This is out of curiosity, to see whether the effect changes as other variables are introduced.

4.2.1 Individual-level variables

The parameter estimates for the individual level variables show the estimated effect of these sources of legitimacy for the entire sample regardless of what country they belong to. They show the change in support for regime principles if the independent variable is increased with one scale-point. The intercept shows the estimated average support for regime principles when all the independent variables are at their group mean, since they are all centered on the grand mean (Strabac 2007: 183). This shows that there is generally a high support for regime principles.

In the first model I have included only the socio-structural factors at the individual-level – age and education. Both of them show significant effects, with the effect of education a bit stronger than the effect of age. Their effect remains significant and stable throughout all the models. The same is true for the post-materialist and the social capital variable that is introduced in model 2.

The effects of the individual-level variables are consistent with what the hypotheses predicted: those with higher levels of education generally show a stronger support for regime principles than those with lower levels of education; people with higher levels of post-materialist values show stronger support for regime principles; and people with high social capital show stronger support for the regime principles. When it comes to age, the result so far only confirms the finding by Norris (2011: 133-134) that older people have a higher support for regime principles. It is only in the next section we can test whether that effect depends on the level of democracy in a country.

[13] As discussed in section 3.3.1 countries categorized as "not free" by Freedom House will be excluded from this part of the analysis. As such, China, Iran, Iraq, Egypt, Rwanda and Vietnam is not included when analyzing the effect on support for regime principles.

There are a few ways to evaluate how well a multi-level model fits the data. Perhaps the most intuitive way is to calculate what Bickel (2007: 131-133) calls a pseudo-R^2, based on how much of the variance is explained from one model to the next[14]. To avoid confusion with the pseudo-R^2 used in logistical analysis, based on the -2LL, I label it predicted variance. The predicted variance in model 1 is 4.6, meaning that introducing the socio-structural variables reduced the amount of error variance by 4.6% compared to a null model (Bickel 2007: 131-133). Introducing the values and attitudes variables increased the proportion of predicted variance to 6.13. The fact that these variables also reduces the country-level variance, from .513 in the null model to .454 in model 1 and .420 in model 2, can be ascribed to differences in the country-means on the individual-level variables (Strabac 2007:184): cross-country differences in age, education, post-material values and social capital explains some of the country-level variance.

The -2 Restricted Log Likelihood (-2LL) also gives us an estimation of how well the model fits the data. -2LL is shown as "smaller-is-better", meaning that a reduction in -2LL indicates that the model gives a better representation of the data (Christophersen 2009: 234, 237). The significance of reduction in –2LL is tested by applying critical values for a chi-square test, where degrees of freedom is decided by the number of new variables included from one model to the other (Christophersen 2009: 179-180). The reductions in model 1 and 2 are highly significant, indicating that the individual-level variables contribute to explaining what makes people support the principles of the regime.

4.2.2 Country-level variables

The most interesting result in table 4.1 when it comes to the country-level variables is that the Quality of Government variable shows a strong and highly significant effect, whereas the electoral democracy variable is only significant before the Quality of Government variable is included (model 3). This confirms the expectation with regards to Quality of Government, but not when it comes to electoral democracy. My hypothesis (H1a) was that the effect of electoral democracy is positive, something it is in model 3, but this effect disappears entirely when Quality of Government is introduced. This indicates that electoral democracy is even

[14] Pseudo-R^2 is calculated by the following formula: R^2 = (1-[(individual level variance in model + country-level variance in model) / (individual level variance in null model + country-level variance in null model)]*100 (Bickel 2007: 133).

less important than what I expected, and in line with Rothstein's (2009) claim that electoral democracy is overrated as a source of legitimacy.

The effect of Quality of Government in model 4 shows that the average support for regime principles in a country increases with .181 if the Quality of Government increases with one scale-point. This shows that Finland, who has the highest possible score on the Quality of Government index, has a predicted average support for regime principles that is almost .8 points higher than those with the average value on the QoG-index, all else equal. The fact that the effect is significant at the 1% level in all the models is quite impressive, when we consider that the number of units is a lot lower on the country-level than on the individual-level and that we therefore will find it more difficult to get significant effects at the country level (Strabac 2007: 186-187). Introducing the Quality of Government variable increased the pseudo-R^2 to 11.32 and the -2LL was reduced with 9.7 which is also significant at the 1%-level. All in all, this shows that Quality of Government is a significant source of support for regime principles.

When it comes to the other country-level variables, the variable measuring average annual growth in GDP over the last 5 years is significant, but showing a *negative* effect. The variable for economic growth over 10 years is not significant (it was therefore not included in the table). Both these findings go against the hypotheses (H8a and H8c). One possible explanation is that poorer countries showed higher levels of growth in the years leading up to 2005, and that they generally hold a lower level of support for regime principles. Also considering that the Gini index measuring distributions of income failed to show significant results (not included in table), there is no evidence that supports the economic performance theories so far.

Ethnic fractionalization failed to show significant results before economic performance was included. In addition, the little effect it shows contradicts the hypothesis (H3), indicating that countries with higher ethnic fractionalization also have a higher level of support for regime principles. However, this is only one of three dependent variables and both ethnic fractionalization and economic performance could show effects in accordance with the hypotheses on the other dimensions of regime legitimacy.

4.2.3 Variations in effects – random slope

The analysis in table 4.1 assumes that the effect of the individual-level variables is the same in all the countries in the analysis (Strabac 2007: 188). As we can see from the hypotheses (H4a, H4b, H6a and H6b) in section 4.1, I expect there to be some variation in the effect of both education and post-materialist values across countries. The previous section showed that education has a positive effect *on average* on support for regime principles. However, I expect this effect to be positive only in democratic countries, since people with higher education is expected to place a stronger emphasis on the importance of democratic governance and therefore not express support for regime principles in authoritarian states. Similarly, I expect post-materialist values to influence support for regime principles different in democratic and non-democratic regimes, with the effect being positive only in democratic states. The fact that they now both show positive effects could be a consequence of there being more democratic countries in the sample than non-democratic ones[15], making the *average* effect for the entire sample positive. Therefore, I will allow these two effects to vary across countries to see whether these assumptions are correct.

In table 4.2 I present a so called random slope model (Strabac 2007: 190), where the effect of both education and post-materialist values is allowed to vary across countries. The parameter estimates has the same interpretation as in the random intercept model, but this model also includes variance components for these two individual-level variables that indicate how much variation there is in the effect across countries. The easies way of interpreting these variance components is by constructing an interval around the average effect of the variables which show where the parameter estimate for 95% of the countries can be expected to be found, given that these parameter estimates are normally distributed (Christophersen 2009: 242). This way, we can see that 95% of the countries in the sample have an average effect of education on support for regime principles between .235 and .021[16].

[15] 75% of the units in the sample have a value of 5 or higher on the electoral democracy variable (0-10), and the mean value is 7.1.
[16] √. 003=.055. Interval: .128±1.96*.055 = .128±.107

Table 4.2 Parameter estimates for multi-level models (REML) on Support for regime principles, random slope. N = 49 270, standard errors in parenthesis

Individual-level variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Intercept	7.022 (.093)***	6.921 (.086)***	6.947 (.087)***	6.906 (.087)***	6.888 (.086)***
Age	.083 (.005)***	.083 (.005)***	.083 (.005)***	.083 (.005)***	.054 (.006)***
Education	.128 (.009)***	.128 (.009)***	.115 (.010)***	.128 (.009)***	.128 (.009)***
Post-materialist values	.130 (.039)***	.130 (.039)***	.129 (.039)***	.093 (.043)**	.129 (.040)***
Social capital	.139 (.017)***	.138 (.017)***	.137 (.017)***	.138 (.017)***	.138 (.017)***
Country-level variables					
Electoral democracy		-.016 (.047)	-.036 (.048)	-.003 (.048)	.002 (.051)
Quality of Government		.188 (.042)***	.187 (.042)***	.188 (.042)***	.178 (.041)***
Ethnic fractionalization		.075 (.034)**	.074 (.034)**	.075 (.034)**	.073 (.034)**
Economic growth		-.125 (.044)***	-.124 (.044)***	-.124 (.044)***	-.120 (.044)***
Interactions					
Education*electoral democracy			.010 (.004)**		
PM values*electoral democracy				.030 (.018)	
Age*electoral democracy					.020 (.003)***
Variance components					
Individual-level	2.239 (.014)	2.239 (.014)	2.239 (.014)	2.239 (.014)	2.236 (.014)
Country-level	.369 (.081)	.220 (.051)	.220 (.051)	.222 (.052)	.216 (.051)
Education	.003 (.001)	.003 (.001)	.003 (.001)	.003 (.001)	.004 (.001)
Post-materialist values	.059 (.014)	.059 (.014)	.059 (.014)	.052 (.013)	.059 (.014)
Covar: education, intercept	.009 (.006)	-.005 (.006)	-.004 (.005)	-.005 (.006)	-.004 (.006)
Covar: PM values, intercept	.055 (.026)	.011 (.025)	.015 (.025)	.011 (.02)	.010 (.025)
Covar: PM values, education	.007 (.003)	.007 (.003)	.005 (.002)	.006 (.003)	.008 (.003)
Predicted variance	9.13	14.32	14.25	14.25	14.56
-2LL	180979.8	180976.4	180980.3	180980.4	180924.7

* p < .10 ** p < .05 *** p < .01

For post-materialist values the interval is between .606 and -.346[17]. This shows that the effect of post-materialist values varies a lot and that it is actually strongly *negative* in some countries (though we do not know yet whether it is negative in non-democratic countries). The effect of education varies less than that of post-materialist values, and does not show negative effects for any of the countries within the 95%-interval. This variation is therefore less than what I expected it to be, but it does not rule out that the effect can be negative in authoritarian states, as there are very few authoritarian regimes in the sample and one or two might fall outside the interval[18].

The predicted variance in the random slope model also contains variance that is predicted by allowing the parameter estimates to vary, in addition to the variance predicted by the parameter estimate itself. So the increase in predicted variance from 6.13 in model 2 table 4.1 to 9.13 in model 1 table 4.2 is caused by allowing the effect of education and post-materialist values to vary. The reduction of -2LL also show that this random slope gives a significantly better fit of the data than the simpler random intercept model (Strabac 2007: 190-191).

Introducing the country-level variables as in model 2 does not change overall pattern with the variance estimates of education and post-materialist values, meaning that electoral democracy, Quality of Government, economic growth or ethnic fractionalization does not explain why the effect of the variables varies across countries.

4.2.4 Variations in effects - interactions

Interactions allow us to see if the effect of one variable is contingent on the values on another independent variable. In multi-level analysis, we can also see if the effect of an individual-level variable is contingent on the value on a country-level variable, so called cross-level interaction (Christophersen 2009: 244). By including an interaction between education and electoral democracy we see that the effect of education on support for regime principles is significantly related to the level of democracy in the country and that the effect of education increases with .01 when the level of electoral democracy is increased by one scale point. Though it is a significant effect and shows that higher levels of democracy increase the effect

[17] √. 059=.243. Interval: .130±1.96*.243 = .140±.476

[18] The analysis that is shown in table 4.2 was run without the non-democratic states in the sample, and cannot therefore be used to say anything about the effect in these countries. Running the analyses with these countries in the sample does very little to change the effects of the variables in question, or with the overall pattern of the analysis.

of education on the support for regime principles, the effect is quite weak. Also, it does not give support to the claim that education will have a negative effect in non-democratic states, as the effect of education remains positive even in countries with the lowest value on the electoral democracy variable[19].

The interaction between post-materialist values and electoral democracy was positive, indicating that the effect is stronger in most democratic countries and possibly negative in the least democratic ones, which is in line with the hypothesis (H6a and H6b). However, this effect was not significant, though it was close to being significant at the 10%-level. Even though this effect supports the assumption that post-materialist values can have a negative effect on regime principles in the least democratic countries, the lack of a significant effect merits some caution about this relationship.

As the hypotheses (H5a and H5b) concerning the effect of age shows, I expect it to depend on the degree of democracy in the country. For support for regime principles, I expect age to have a negative effect in democratic countries and a positive effect in non-democratic countries. The interaction shows that there is a significant relationship between age and the level of electoral democracy, but since it is positive and the parameter estimate for age is positive, what it shows is that age will have an even stronger positive effect on support for regime principles in highly democratic societies. The interaction is strong enough that the effect can be negative in the non-democratic countries[20]. Both of these findings go against the hypotheses.

An interaction between Quality of Government and ethnic fractionalization failed to show significant results, and therefore failing to give support to the assumption that Quality of Government is especially important as a source of legitimacy in ethnically heterogeneous societies (hypothesis H1b).

4.2.5 Summary of the findings

The analysis of the sources of support for the regime principles has shown us that Quality of Government is a strong predictor across all models, and that electoral democracy was only

[19] The mean value on the electoral democracy variable is 7.1. With a parameter estimate for education of .128 and an interaction between education and electoral democracy of .01, the effect of education in countries with the lowest possible level on the electoral democracy variable (0), would be .128+[.01*(0 - 7.1)]=.057.
[20] The threshold between positive and negative effect on age is with a value on electoral democracy of 4.4. .054+[.02*(4,4 – 7,1)] = 0

significant when Quality of Government was not included in the analysis. This suggests that whatever effect one might see on regime legitimacy from electoral democracy, is actually caused by a corresponding high level of Quality of Government. It also lends support to the expectation that Quality of Government has a stronger effect than electoral democracy, though I did not expect democracy to be without significance. However, Quality of Government did not show a stronger effect in ethnically heterogeneous societies.

All the individual-level variables showed significant results that correspond to the hypotheses. Even the varying effects of education and post-materialist values across countries partially corresponded with my expectations. The direction of the interaction between post-materialist values and electoral democracy was in line with what the hypothesis (H6a and H6b) predicts, but it was not strong enough to be significant. For education, the interaction with electoral democracy was significant, but the effect not strong enough to support that is has a negative effect in non-democratic countries. There was a significant relationship between age and the level of democracy, but this showed that older people have a higher support for the regime principles in democratic countries, contrary to what I expected.

Both ethnic fractionalization and economic performance showed significant results in the random intercept model, but their effect was contrary to my expectations – ethnic fractionalization seems to increase support for regime principles, while economic performance seems to reduce it. The fact that is was only the economic growth over 5 years and not 10 years that showed a significant effect was a surprise. However, it is too early to dismiss the economic performance theory, even though the gini index also failed to show significant results. It is perhaps more likely that economic *performance* influences the evaluation of regime *performance*, which is what I will investigate in the next section.

4.3 The effects on support for regime performance

Table 4.3 present similar models as in section 4.2, but now with support for regime performance as the dependent variable. Where support for regime principles relates to whether or not the citizens support the foundations of the regime at an abstract, value-based level, support for regime performance concerns whether they are satisfied with the outputs the regime generate (Norris 2011: 26-28). This is expected to include evaluation of outputs in a very broad sense, meaning both the specific material benefits the regime generates, like jobs, welfare and security, as well as how this is generated.

Table 4.3: Parameter estimates for multi-level models (REML) on Support for regime performance, random intercept. N = 58 898, standard errors in parenthesis

Individual-level variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Intercept	5.781 (.174)***	5.776 (.170)***	5.645 (.169)***	5.653 (.158)***	5.655 (.152)***	5.675 (.150)***
Age	.012 (.006)*	.007 (.006)	.006 (.006)	.006 (.006)	.006 (.006)	.006 (.006)
Education	.006 (.004)	.004 (.004)	.004 (.004)	.003 (.004)	.003 (.004)	.003 (.004)
Post-materialist values		-.105 (.015)***	-.105 (.015)***	-.105 (.015)***	-.105 (.015)***	-.105 (.015)***
Social capital		.488 (.022)***	.488 (.022)***	.487 (.022)***	.488 (.022)***	.488 (.022)***
Country-level variables						
Electoral democracy			.166 (.065)**	.048 (.075)	.052 (.072)	.123 (.083)
Quality of Government				.229 (.084)***	.296 (.088)***	.263 (.088)***
Ethnic fractionalization					.141 (.068)**	.122 (.068)*
Economic growth						.169 (.104)
Covariance parameters						
Individual-level	4.683 (.027)	4.641 (.027)	4.641 (.027)	4.641 (.027)	4.641 (.027)	4.641 (.027)
Country-level	1.395 (.295)	1.328 (.281)	1.183 (.253)	1.033 (.224)	.960 (.210)	.924 (.205)
Predicted variance	0.79	1.84	4.23	6.69	7.89	8.49
-2LL	259654.5	259132.1	259129.5	259125.7	259125.1	259125.2

* p < .10. ** p < .05. *** p < .01

4.3.1 Individual-level variables

Unlike with support for regime principles, the socio-structural variables - age and education – show very weak and mainly non-significant effects on support for regime performance. Even though this goes against my expectations, we have to keep in mind that this is an average effect and that they could show stronger effects when we control for its relationship to democracy.

Social capital has a stronger positive effect than in the previous section, which lends support to the expectation that it is a more important source of support with the more specific levels of regime support. When it comes to post-materialist values, the effect is now negative. Even though I expected the effect to be positive on the most diffuse level of regime support, regime principles, while being negative on the most specific level, regime institutions (hypothesis (H6a), I did not expect it to be negative on support for regime performance. However, it makes sense that people with high levels of post-materialist values are less satisfied with the performance of the regime, as they are thought to hold higher expectations to it.

Since the socio-structural variables shows little or no effect, their contribution to reducing the error variance hardly deserves attention. For the values and attitudes, the proportion of predicted variance is only 1.84, which show that the individual-level variables does less to explain support for regime performance than they did for regime principles. Values and attitudes do reduce the -2LL significantly though, showing that they explain more that the socio-structural variables do.

4.3.2 Country-level variables

The effects of the country-level variables are very similar to what we saw in the previous analysis. Again, the effect of electoral democracy is explained entirely by Quality of Government, which shows a strong and significant effect across all models. In fact, the effect of Quality of Government is stronger on support for regime performance than on regime principles. This is maybe not surprising, as impartial treatment on the output-side of the political system should have a strong influence on citizen's evaluation of the outputs of the regime. The fact that electoral democracy does not strengthen support for regime performance could be because it does not necessarily improve performance – poor authoritarian countries usually perform better than poor democratic ones (Charron and Lapuente 2010) – or it might

be because people in democratic countries expect more from their regimes, regardless of age, education, social capital or post-materialist values. Another possible explanation is that people in democratic countries have a greater access to negative news about their regime and its politicians, though Norris (2011: 169-187) showed that this does not necessarily influence their evaluation of regime performance. In any case, it is interesting to note that electoral democracy has failed to show any independent effect when it comes to creating regime legitimacy so far, contrary to what I expected (hypothesis H1a).

The country-level variables do more to reduce the error variance in this analysis than the individual-level variables, though a lot of variance is left. The improvement of -2LL is also very low, and only the reduction caused by Quality of Government is significant at the 1%-level. Taken together, these explanatory variables seem to leave a lot unexplained when it comes to what creates support for regime performance.

Like with support for regime principles, the degree of ethnic fractionalization shows a significant effect, but the direction of the relationship is still contrary to the hypothesized one (hypothesis H3) – ethnically heterogeneous societies has a higher level of support for regime performance. This is interesting, especially since the effect is controlled for the effect of Quality of Government and is therefore not a product of regimes in ethnically heterogeneous societies being more careful with treating their citizens impartially. The effect is reduced and only significant at the 10%-level after controlling for economic growth, which could indicate that the effect is at least in part a product of ethnically homogenous societies performing better economically.

Both economic growth over 5 and 10 years, and the gini index, failed to produce significant results, indicating that the economic performance has little influence on citizen's evaluation of the performance of the regime. This is highly surprising, since economic performance is generally believed to have a significant influence on how people evaluate the performance of the regime. Quality of Government and an impartial process of output generation seem to be a lot more important than the absolute level of outputs.

4.3.3 Variations in effects – random slope

Table 4.4: Parameter estimates for multi-level models (REML) on Support for regime performance, random slope. N = 58 898, standard errors in parenthesis

Individual-level variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Intercept	5.755 (.169)***	5.565 (.161)***	5.646 (.157)***	5.594 (.159)***	5.545 (.162)***
Age	.010 (.006)	.010 (.006)	.010 (.006)	.010 (.006)	.011 (.006)
Education	.026 (.012)**	.026 (.012)**	.013 (.010)	.026 (.012)**	.027 (.012)**
Post-materialist values	-.098 (.037)***	-.098 (.037)***	-.098 (.036)***	-.078 (.037)***	-.098 (.036)***
Social capital	.457 (.022)***	.458 (.022)***	.457 (.022)***	.458 (.022)***	.457 (.022)***
Country-level variables					
Electoral democracy		.134 (.078)*	.030 (.081)	.097 (.080)	.148 (.078)*
Quality of Government		.413 (.083)***	.414 (.083)***	.416 (.083)***	.410 (.083)***
Ethnic fractionalization		.108 (.063)*	.104 (.063)	.106 (.063)	.107 (.063)*
Economic growth		.121 (.098)	.121 (.098)	.120 (.098)	.124 (.098)
Interactions					
Education*electoral democracy			.018 (.004)***		
PM values*electoral democracy				-.026 (.014)*	
Age*electoral democracy					.010 (.002)***
Variance components					
Individual-level	4.595 (.027)	4.595 (.027)	4.595 (.027)	4.595 (.027)	4.593 (.027)
Country-level	1.301 (.275)	1.096 (.306)	1.021 (.252)	1.059 (.281)	1.116 (.319)
Education	.005 (.001)	.005 (.001)	.004 (.001)	.005 (.001)	.006 (.001)
Post-materialist values	.050 (.013)	.049 (.013)	.049 (.013)	.050 (.014)	.049 (.013)
Covar: education, intercept	.019 (.014)	-.033 (.019)	-.021 (.013)	-.033 (.018)	-.036 (.021)
Covar: PM values, intercept	.013 (.042)	.075 (.043)	.067 (.041)	.061 (.042)	.076 (.044)
Covar: PM values, education	.002 (.003)	.002 (.003)	.003 (.003)	.005 (.004)	.002 (.003)
Predicted variance	3.04	6.41	7.65	7.02	6.12
-2LL	258707.6	258698.4	258690.1	258702.8	258691.9

* p < .10. ** p < .05. *** p < .01

There are reasons to expect that the effect of education and post-materialist values varies for this part of the analysis as well. Even though the effect of post-materialist values now changed from positive to negative, it is possible that it still has a positive effect in some countries. Education showed no effect on average, which could be because the variation in effects equally positive and negative. And if it is negative in some countries, this could be related to the degree of democracy in that country, as I expect in hypothesis H4a. Table 4.4 therefore presents a random slope model, where both education and post-materialist values varies across countries.

The variance components are very similar to those we saw in the previous analysis. It has increased from .003 to .005 for education. Hence, the interval around the effect of education on support for regime performance is .165 and -.113[21]. This shows that in many of the countries in the sample, the effect of education on the satisfaction with regime performance is actually negative. For post-materialist values, the effect of 95% of the countries is found to be between .340 and -.536[22], which is similar to the random slope model in the previous analysis, only that now the effect is more likely to be negative than positive in a given country.

Including the country-level variables does nothing to change the overall picture of variance in effects – neither electoral democracy, Quality of Government, economic growth or ethnic fractionalization can explain why the effect of education and post-materialist values are so different in different countries.

4.3.4 Variations in effects – interactions

Like in the previous section, I expect the effect of Quality of Government to be stronger in more ethnically fractionalized societies. But also here does the interaction between the two fails to show a significant effect (therefore not included in the table). As we have seen, the degree of ethnic fractionalization has only show weak and *positive* effects so far, which indicates that if anything separates ethnically heterogeneous societies from other societies when it comes to regime support, it is actually that they have higher levels of it. This seems to be unrelated to the level of Quality of Government, which is however an important factor on its own.

[21] √.005=.071. Interval: .026±1.96*.07 = .026±.139
[22] √.050=.224. Interval: -.098±1.96*.224 = -.118±.438

When it comes to the individual-level variables, I expect the effects of education, post-materialist values and age to be systematically related to the level of democracy. For education the hypotheses (H4a and H4b) predicts that the effect is negative for both democratic and non-democratic countries, whereas for post-materialist values the expectation is still that it has a positive effect in democratic countries. For age the hypothesis (H5a and H5b) projects that the effect is now positive in democratic countries and negative in authoritarian ones.

Model 3 shows that there is a significant interaction between the effect of education and electoral democracy – the effect of education is more strongly positive in the most democratic countries. It is however negative for countries with a value on the electoral democracy variable below 6.38, which includes a lot of countries classified as democracies[23]. This suggests that people with higher levels of education in non-democratic and semi-democratic countries are more critical of the performance of their regime than people with less education, and lends support to the theory that part of that keeps authoritarian regimes legitimate is the low levels of education in these countries.

The interaction between post-materialist values and democracy now shows a significant relationship, indicating that the effect is even more strongly negative in the most democratic countries. So there is no evidence to support that the effect of post-materialist values on support for regime performance is positive in democratic states. It might however be positive in the least democratic countries[24], which I find highly surprising.

The interaction between age and electoral democracy is significant here as well, indicating that the effect is more strongly positive in the most democratic countries. It can however also be negative in democratic countries, as any country with a value below 6 on the electoral democracy variable will have a negative effect on age[25]. That older people have higher support for regime performance is in line with what I expected, but not that they have lower support in non-democratic and semi-democratic states.

[23] The threshold between positive and negative effects of education is 6.38 on the electoral democracy variable. .013+[.018*(6,38 – 7,1)] = 0. The effect can be as strong as -.115 in the least democratic countries.
[24] The threshold between positive and negative effects of education is 4.1 on the electoral democracy variable. -.078+[-.026*(4.1 – 7.1)] = 0. The effect can be as strong as .107 in the least democratic countries.
[25] The threshold between positive and negative effects of education is 6 on the electoral democracy variable. .011+[.010*(6 – 7.1)] = 0. The effect can be as strong as .107 in the least democratic countries.

4.3.5 Summary of findings

The analysis of the support for regime performance repeats the pattern of the previous analysis – Quality of Government is the country-level variable that shows the strongest and most persistent effect across all models. The effect was even stronger on support for regime performance than on regime principles, which could be because impartial exercise of public authority is more directly linked to regime performance than to the regime principles. The effect of electoral democracy disappeared when controlling for Quality of Government in this analysis as well, showing that the effect of electoral democracy is not independent of Quality of Government. This could be because democracies do not necessarily perform better than authoritarian regimes (Przeworski and Limongi 1993), or that their citizens are more critical and expect more from their regime than people in non-democratic states (Norris 1999a, 2011). It could also be that what secures satisfaction with regime performance in a democracy is that the regime exercises its power in a non-corrupt and impartial way, through high Quality of Government, something that is not guaranteed by the regime being democratic.

Ethnic fractionalization showed a *positive* effect, like it did with support for regime principles, indicating that more ethnically heterogeneous societies have a higher satisfaction with regime performance. All the economic performance indicators failed to show significant effects, calling the economic performance theory into question.

The socio-structural variables at the individual level showed only weak or no effects on average, though I found the effect of education to be significantly dependent on the level of democracy, in line with what I expected. The effect of age also depends on the level of democracy, this time conforming to my expectation about democracies but not with non-democratic states.

Social capital now showed a stronger effect than on the more diffuse level of regime support, indicating that it has a stronger effect on the more specific levels of regime support. Post-materialist values have a negative effect on satisfaction with regime performance, which goes against the hypothesis (H6a). It is however not very surprising considering that such values has been shown earlier to increase expectations to the performance of democracy (Norris 2011: 134-135). If the regimes fail to meet these expectations, then it is only logical that these people are less satisfied. The variation across countries was also similar to the previous

analysis, but this time the interaction with electoral democracy was significant. It was not strong enough to support the expectation that the effect can be positive in democratic states.

4.4 The effects on support for regime institutions

The last dependent variable to be investigated is support for regime institutions. This dimension of regime legitimacy concerns whether citizens express trust in the key institutions of the regime (Norris 2011: 29), namely the government, parliament, civil service, the courts, police and armed forces. Table 4.5 shows the effects of the sources of legitimacy on support for regime institutions in a random intercept model.

Table 4.5: Parameter estimates for multi-level models (REML) on Support for regime institutions, random intercept. N = 56 903, standard errors in parenthesis

Individual-level variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Intercept	5.029 (.156)***	5.025 (.152)***	5.153 (.160)***	5.157 (.148)***	5.152 (.145)***	5.182 (.139)***
Age	.048 (.006)***	.041 (.006)***	.041 (.006)***	.041 (.006)***	.041 (.006)***	.041 (.006)***
Education	-.030 (.004)***	-.033 (.004)***	-.033 (.004)***	-.033 (.004)***	-.033 (.004)***	-.033 (.004)***
Post-materialist values		-.125 (.014)***	-.124 (.014)***	-.124 (.014)***	-.125 (.014)***	-.124 (.014)***
Social capital		.550 (.021)***	.550 (.021)***	.549 (.021)***	.550 (.021)***	.550 (.021)***
Country-level variables						
Electoral democracy			-.134 (.067)*	-.245 (.072)***	-.238 (.071)***	-.155 (.077)*
Quality of Government				.219 (.075)***	.269 (.080)'***	.229 (.078)***
Ethnic fractionalization					.104 (.062)*	.080 (.060)
Economic growth						.206 (.092)**
Covariance parameters						
Individual-level	3.987 (.024)	3.934 (.023)	3.934 (.023)	3.934 (.023)	3.934 (.023)	3.934 (.023)
Country-level	1.096 (.235)	1.033 (.221)	.966 (.209)	.823 (.180)	.789 (.175)	.718 (.161)
Explained variance	.17	2.45	3.77	6.57	7.24	8.64
-2LL	241799.9	241045.3	241045.0	241040.4	241041.4	241039.4

* p < .10. ** p < .05. *** p < .01

4.4.1 Individual-level variables

The effect of the individual-level socio-structural variables show that older people are on average more likely to have high support for regime institutions, while those with higher levels of education on average are more likely to show less support. Looking at the amount of predicted variance in model 1 shows that, like in the previous analysis, the socio-structural variables hardly reduces the error variance. However, they do reduce the -2LL significantly compared to the null model[26], which indicates that these variables give a better fit of the data.

Social capital continues to be significant and positive throughout every model in table 4.5, which is consistent with the finding on the two other dimensions of regime legitimacy. That it has a stronger effect than in the previous two analyses also confirms that social capital has a stronger effect on the most specific levels of regime support, as predicted in hypothesis H7b. As expected, the effect of post-materialist values is negative on average, and slightly stronger than it was on support for regime performance. It shows that people with higher levels of post-materialist values holds less confidence to regime institutions, even after controlling for the level of democracy, Quality of Government, ethnic fractionalization and the economic growth over the last 10 years. Taken together, the individual-level variables only increase the predicted variance with 2.45, which is less than in the previous analysis. Still, the values and attitudes variables reduce the -2LL significantly as well, indicating that including them improves the model.

4.4.2 Country-level variables

The most interesting finding when it comes to the country-level variables in this analysis is that the effect of electoral democracy is for once significant also after controlling for Quality of Government. This means that being a democratic country has an independent effect on the level of support for regime institutions. However, this effect is strongly *negative*! And when controlling for the effect of Quality of Government, which is still positive and significant, the effect of electoral democracy becomes even more negative, indicating that the effect of Quality of Government mitigates the negative effect of electoral democracy. The strength of the effect is reduced a little when controlling for the effect of economic performance, which indicates that part of the negative effect of democracy is due to lower economic growth in democratic countries in the last 10 years leading up to 2005. Electoral democracy improves

[26] -2LL is 241970.1 in the null model.

the explained variance slightly, though the improvement is much larger after Quality of Government is introduced. The introduction of Quality of Government reduces -2LL significantly, though only at the 5%-level.

That electoral democracy shows a negative effect could be because people in democratic countries are more critical towards their government and its regime, either because they expect more or because they have better access to news and information that gives them reasons to be critical (Norris 1999a, 2011). If a democracy does not have high Quality of Government, good economic performance, it is perhaps only logical that its performance falls short of citizens' expectations, and that they show less trust in public institutions.

As in the previous analysis, ethnic fractionalization shows a significant effect, but this time it disappears after I control for the effect of economic growth. It indicates that the effect is not independent from how well the regime performs economically. Economic performance now shows a significant effect that is also positive, indicating that sustained economic growth (over the last 10 years) increases support for regime institutions. This is the only evidence to emerge that supports the economic performance theory. Still, how the wealth is distributed does not seem to have an effect on this dimension of regime legitimacy, just like with the other dimensions (estimate of gini index therefore not included in the table).

4.4.3 Variations in effects – random slope

As with the previous two analyses, there are good reasons to expect the effect of both education and post-materialist values to vary across countries. The random intercept model in table 4.5 showed a negative effect for education on average and post-materialist values, which supports the hypotheses. However, since the previous analyses have shown that there is substantial variation in the effect of education and post-materialist values between countries, I will check whether this is the case with support for regime institutions as well.

Table 4.6: Parameter estimates for multi-level models (REML) on Support for regime institutions, random slope. N = 56 903, standard errors in parenthesis

Individual-level variables	**Model 1**	**Model 2**	**Model 3**
Intercept	5.000 (.152)***	5.105 (.142)***	5.096 (.142)***
Age	.044 (.006)***	.044 (.006)***	.044 (.006)***
Education	-.020 (.013)	-.020 (.013)	-.020 (.013)
Post-materialist values	-.127 (.030)***	-.127 (.030)***	-.148 (.032)***
Social capital	.522 (.021)***	.522 (.021)***	.521 (.021)***
Country-level variables			
Electoral democracy		-.155 (.076)**	-.146 (.075)*
Quality of Government		.293 (.076)***	.292 (.076)***
Economic growth		.164 (.089)*	.165 (.089)*
Ethnic fractionalization		.066 (.058)	.066 (.058)
Interactions			
Education*electoral democracy			.018 (.005)***
Variance components			
Individual-level	3.886 (.023)	3.886 (.023)	3.886 (.023)
Country-level	1.034 (.221)	.767 (.181)	.770 (.184)
Education	.007 (.002)	.007 (.002)	.007 (.002)
Post-materialist values	.030 (.008)	.029 (.008)	.029 (.008)
Covar: education, intercept	-.021 (.014)	-.025 (.015)	-.026 (.015)
Covar: PM values, intercept	-.021 (.031)	.014 (.030)	.019 (.030)
Covar: PM values, education	.0004 (.003)	.0004 (.003)	-.001 (.003)
Predicted variance	3.37	8.62	8.56
-2LL	240512,2	240506.8	240511.4

* p < .10. ** p < .05. *** p < .01

In table 4.6, the effects of education and post-materialist values are allowed to vary across countries. The variance component of education is .007, which means that in 95% of the

countries in the sample the effect of education will be between 0.144 and -0.184[27]. So even though the *average* effect of education suggest that there is no or only a very weak effect of education on trust in regime institutions, there is in fact a stronger effect in many countries in both positive and negative direction.

The variance of post-materialist values is smaller than in the previous analyses, but still shows that there is a large variance across countries – large enough for it to be positive in many countries. The effect for 95% of the countries can be found between -.466 and .212[28].

The predicted variance is increased to 3.37 compared to 2.45 in model 2 in table 4.5, which is not a large increase. Letting the effect of education and post-materialist values vary reduces the -2LL significantly compared to model 2 in table 4.5, indicating that a random slope model gives a better fit of the data.

4.4.4 Variations in effects – interactions

Unlike in the previous two analyses, I now expect the effect of both these variables to be negative in both democratic and non-democratic countries. Obviously, since the random slope analysis just showed that their effect is positive in some countries despite being negative on average, this expectation is not correct in all cases. But we can still see if the variations of the effects are systematically related to the level of democracy or not. The same goes for age, where I expect the effect to be positive regardless of the regime type.

The only interaction that is significant on this dependent variable is between education and electoral democracy. This shows that the effect of education can be positive in the most democratic countries in the sample[29]. Even though this goes against my hypothesis (H4a), it is perhaps not so surprising – if people with high levels of education place a greater emphasis on democratic governance and expects more from government institutions, it is only logical that they support them in the most well functioning democratic countries. On average though, people with higher education tend to be more critical towards the institutions for their regime than those with lower levels of education, and more so in the least democratic regimes.

[27] √.007=.084 Interval: -.02±1.96*.084 = -.02±.164
[28] √.030=.173. Interval: -.127±1.96*.173 = -.127±.339
[29] The threshold between positive and negative effects of education is 8.2 on the electoral democracy variable. -.020+[.018*(8,2 – 7,1)] = 0.

The fact that there is no significant interaction between either post-materialist values or age with electoral democracy indicates, as the hypotheses predicted, that there is no systematic relationship between these variables. The effect of age is positive in both democracies and non-democratic countries. The interval of the effect of post-materialist values (-.466 to .212) shows that the effect can be positive in some countries, but it is negative on average and the variance seems to be unrelated to the level of democracy.

Here as well does the interaction between Quality of Government and ethnic fractionalization fail to show a significant effect. Quality of Government does not seem to be more important in ethnically heterogeneous societies: the effect is strong regardless of the degree of ethnic fractionalization.

4.4.5 Summary of findings

The most surprising finding with regard to support for regime institutions that the effect of electoral democracy is negative – the more democratic a country is, the lower is the average support for regime institutions, all else equal. Though it goes against the hypothesis (H1a), it somewhat conforms to Norris (1999a, 2011) finding that people in democracies expect more and are more critical towards the institutions of their regime. Despite this, Quality of Government still show a strong positive effect, indicating that high quality bureaucracy might be a key to sustaining trust in government institutions in democracies and non-democracies alike.

Age has a positive effect that is unrelated to the level of democracy, something that conforms to the hypothesis (H5a and H5b): older people generally have a higher support for regime institutions, both in democratic and non-democratic regimes. Education did have a significant relationship with the level of democracy, showing that the effect of education is negative in all but the most democratic countries. That it can be positive in some countries goes against the hypotheses (H4a and H4b), but since the effect is thought to be caused by people with higher levels of education having higher expectations to democratic governance and democratic institutions, it makes sense that they show higher support in the most democratic countries.

Post-materialist values show a negative effect on average that is unrelated to the level of democracy, as the hypotheses (H6a and H6b) predict. The hypotheses (H7a and H7b) is also

confirmed with regard to social capital, that shows a stronger positive effect than on the other two dimensions of regime legitimacy.

Economic performance for the first time showed an effect that conforms to the hypothesis (H8b) – higher economic growth increases support for regime institutions. Distribution of wealth did however fail to show a significant effect again, as did ethnic fractionalization after controlling for economic performance. The fact that it showed a significant effect before controlling for the effect of economic performance indicates that the reason ethnically homogenous societies show higher levels of support for regime institutions could in part be caused by better economic performance. However, this effect of ethnic fractionalization goes against the hypothesis (H3).

4.5 The effects on regime legitimacy

This chapter has analyzed the effect of different sources of legitimacy on each of the three levels of regime legitimacy – regime principles, regime performance and regime institutions. The distinction of regime legitimacy into three levels, and a separate analysis of each of them, has uncovered that many of the sources of legitimacy brought forward by theories of regime support show different effects depending on which level we are looking at. Taken together then, their effect on regime legitimacy as a whole is not so easy to interpret, as they might create support on one level while undermining it at another. Other studies of regime support (Norris 1999a, 2011; Olsen 2008; Seligson 2002) have tended to look at only one level or analyze them separately, which is important in order not to obscure the differences in effects, but might also make us overlook the complexity of how the explanatory factors influence regime support as a whole.

As noted, the theory on diffuse regime support (Easton 1975) suggest that it is support for the most diffuse level, support for regime principles, that is the most important level for the legitimacy of the regime – people who do not support the values the regime is based upon are unlikely to find its performance satisfactory or trust the institutions of that regime. That does not mean that the other dimensions are without importance - bad performance and low confidence in government institutions might transfer to declining support for the values of the regime in the long run, or make people feel that the regime is illegitimate because it fails to meet their own standards (i.e. principles). So all of these dimensions are important, but

support for regime principles is more important for the legitimacy of the regime than the others.

Taken together, only two factors have a consistent effect across all levels of regime legitimacy – Quality of Government and social capital. They have a positive effect on all three levels, suggesting a strong and important effect in creating regime legitimacy. This is as predicted in the hypotheses (H1a and H7a). The effect of Quality of Government is however not stronger in countries with high levels of ethnic fractionalization on any of the levels of regime legitimacy, contrary to what I expected (H1b). This could be because the results also show that ethnically heterogeneous societies have a tendency to have higher, not lower, regime legitimacy, also contrary to my expectation (H3).

Another surprising finding is that the only significant effect of electoral democracy is that it is negative on support for regime principles. On the other two dimensions the effect is not strong enough to be significant. So, contrary to what I hypothesized (H1a), electoral democracy does not seem to be an important source of legitimacy in it self.

For the socio-structural variables age and education, the results are a bit mixed. According to the theory of intergenerational value change (Inglehart 1999, Norris 2011: 121-125) younger people should have higher support for regime principles in democracies, and generally less support for the regime in non-democratic countries. The results show that older people in democracies generally hold a higher level of regime support, while in non-democratic countries it shows that younger people have higher support for regime principles and regime performance. This is exactly opposite of what the theory predicts, and calls the theory of how an intergenerational value change influences regime legitimacy into question.

Education shows effects that generally conform to the hypotheses in both democratic (H4a) and non-democratic countries (H4b). In democratic countries the effect is positive on the most diffuse level and negative on the most specific level, as predicted. On support for regime performance, it is positive only in the most democratic countries. The hypothesis (H4b) predicted a negative effect on all levels of regime legitimacy in non-democratic states, something it is with the exception of support for regime principles, where the most authoritarian regimes was excluded from the analysis.

As mentioned, social capital has a positive effect on all levels of regime legitimacy, and the effect is stronger on the more specific levels. This confirms the hypotheses (H7a and H7b) on social capital, showing that societies with a high level of social capital will have higher regime legitimacy.

The effect of post-materialist values was expected to be positive on the most diffuse level, and on support for regime performance, while shifting to be negative on support for regime institutions. The effect is negative on support for regime performance, the mid-level of regime legitimacy, but still the results confirm the general expectation that post-materialist values increases regime legitimacy at the most diffuse level but undermines it at the more specific levels, in democratic countries (Inglehart 1999: 246; Norris 2011: 124-125). What this indicates is that advanced democracies, where there are more people with post-materialist values, have to be well-functioning democracies to keep their support. Following this, I expected that the effect was negative on all dimensions of regime legitimacy in non-democratic regimes, as people with such values should not find their regime illegitimate. The results here are more mixed, as there is no evidence to support that there is a negative effect of post-materialist values on support for regime principles, while the interaction between post-materialist values and electoral democracy on support for regime performance indicate that the effect can be positive for the least democratic countries. So there is no clear evidence that post-materialist values undermine regime legitimacy in authoritarian states, as I expected them to (hypothesis H6b).

The results for the economic performance variables did not provide much support for the hypotheses (H8a, b, c and d). The expected positive effect of sustained economic growth is only evident on support for regime institutions, while it is negative or not significant on the two other dimensions. Distribution of wealth is seemingly not an important factor, calling into question whether it matters that outputs are distributed according to a shared understanding of the common good or not. It could also be that the use of the Gini index, measuring income inequality, does not accurately reflect what people understand by the common good in different societies, or that economic growth is not a good measure of a regime's economic performance and how people evaluate it. Still, the results here call into question what effect economic performance really has on regime legitimacy.

5 Conclusions

The research question of this thesis is "What are the most important factors in creating regime legitimacy?", where a special focus has been put on the relative importance of Quality of Government relative to that of electoral democracy. I have investigated this by separating regime legitimacy into the three levels of regime support – support for regime principles, regime performance and regime institutions, based on Pippa Norris (1999a: 9-13) expansion of David Easton's (1965) typology of political support. The effect of the explanatory variables was tested on each dimension separately, to uncover how some of these variables have a different effect the different levels of regime legitimacy.

I will now discuss what the results tell us about the research question and for the research on regime legitimacy more generally.

5.1 The importance of Quality of Government vs. electoral democracy

The results of this thesis provides quite strong support for the claim made by Bo Rothstein (2009) that Quality of Government is more important in creating legitimacy for a regime than electoral democracy. It has a very strong and independent effect on all the levels of regime support, and stands out as probably the most important source of regime legitimacy. Even though I expected it to have a positive effect on all the different levels of regime support, it is interesting how strong and consistent this effect is considering that the other country-level variables generally show effects that are weak and often not in line with what the theories predict.

It is not surprising that people "award" their regime for being uncorrupt by showing higher levels of support, but what is surprising is how much more important Quality of Government is compared to electoral democracy or other sources of legitimacy. Even though Rothstein (2009) predicted that electoral democracy would have a neglectable effect on regime legitimacy at best, I am surprised to find that it only has an independent effect on support for regime institutions, and that this effect is negative. This shows that electoral democracy is not necessarily the source of legitimacy that it is often thought to be (Fukuyama 2004: 34; Gilley 2009a), and that whatever effect one might find of democracy on regime legitimacy is most

likely a result of a correspondingly high level of Quality of Government. This seems to be have been overlooked by researchers such as Bruce Gilley (2009a) and Pippa Norris (2011: 201) who found democracy to be an important source of legitimacy. If they had tested the effect of these two factors simultaneously, they would probably have reached the same conclusion: it is Quality of Government and the impartial treatment on the output side of the political system, and not electoral democracy that creates regime legitimacy.

This finding suggests that efficient and impartial government institutions, characterized by low levels of corruption and discrimination, could be the main source of legitimacy for many regimes and that a lack of such institutions is a likely cause of legitimacy crisis and regime instability. Considering how economic performance does not appear to have much of an effect, what this suggests more generally is that the procedural fairness of the political system is just as important, if not more, than the outcomes of it (Rothstein 2009; Tyler and Rasinski 1991). High economic performance does not seem to make people overlook a corrupt and unjust system, so in creating regime legitimacy it is more important that a regime treats people impartially than that they have a good economic performance. To return to the example used in introduction, what this suggests is that the regimes in the Arab World were in all likelihood illegitimate in the eyes of their citizens, due to their corrupt nature (Noueihed 2011). Without the ability to create economic outputs that benefitted people in general, due to the same corruption (Goldstone 2011), they did not have the reservoir of diffuse support needed to survive protests and calls for a regime change without having to resort to violence.

As noted earlier, there are some mechanisms in established democracies that make citizens more critical towards their government without it having to translate into a wide-spread notion that the regime is illegitimate. What Norris (1999a, 2011) has found is that the so-called "critical citizens" in modern democracies hold less support for their regime because they expect more from it. So even though electoral democracy does not show any independent positive effect on regime legitimacy, it does not mean that people in established democracies do not support democracy. They do, as the great support for liberal democratic values in the Western world shows (Welzel forthcoming), and they would therefore probably not find any other form of government legitimate. When electoral democracy does not seem to be the source of legitimacy that it is expected to be, it could be because people in democracies will be unsatisfied with how their regime operates unless it also has high Quality of Government. Democratic or not, Quality of Government seems to be the key in creating regime legitimacy.

Obviously, some of the methodological challenges discussed earlier could influence the results. A different operationalization of support for regime principles, that better captures support for the principles of the regimes as they are and not presupposing that the countries are democratic, could of course produce different results. As a precaution the authoritarian states were left out of the analysis of the support for regime principles, something that limits the inference from this part of the analysis. To test how this might affect the results, I ran the analysis on this dependent variable also with the authoritarian regimes in the sample, as well as on both the other dependent variables. This did not influence the results in any substantial way. Further, the pattern was the same on the support for regime institutions index, where the survey items do not make the assumption that the country is democratic (World Values Survey 2005). As the effect of electoral democracy was negative on this level of regime legitimacy, there is nothing that indicates that the effect is in reality positive on the other levels.

Further, the measurement equivalence of the indexes used for the dependent variables could be questioned, as I have not established their equivalence through statistical testing. As such, I have not ruled out that the differences in the scoring on the dependent variables between countries are a result of cultural differences in how one uses survey items instead of being caused by the explanatory variables presented here. Even though the possibility exists, I find it highly unlikely that all these results, in large part in accordance with what major theories on the field predicts, should all be caused by cultural differences and a lack of measurement equivalence.

5.2 The effects of other sources of legitimacy

Even though the relative effect of electoral democracy and Quality of Government has received most attention in this thesis, I have also attempted to say something about other sources as well. As shown in chapter 4, social capital is the only explanatory variable other than Quality of Government that has a positive effect on each level of regime legitimacy. This effect is entirely consistent with what the theory predicts – that social capital increases people's support for the regime, because it strengthens the norms of cooperation and the idea of a shared common good (Norris 2011: 137) . I have assumed that the effect of social capital is independent of other factors, but as noted earlier it could also be that social capital it self is in large part caused by Quality of Government (Rothstein 2011: 164-192). This thesis has

made no attempt at testing this relationship, but if this is the case it would leave Quality of Government as the only independent source of regime legitimacy with a positive effect on all levels of regime legitimacy.

The expectation that younger people place a higher value on democracy and therefore are more likely than older people to find democracies legitimate and authoritarian regimes illegitimate is not confirmed by the results here – instead the opposite seems to be the case. This is in line with what Norris (2011: 133-134) found, but brings us no closer to answering why age has an effect on regime legitimacy.

The theory of how post-materialist values influences regime legitimacy (Inglehart 1999; Norris 2011: 124-125) is generally confirmed by the results, at least in democratic countries. What it tells us is that post-materialist values increase support for democratic values and people's expectations to it. So it will have a positive effect on regime legitimacy in democratic countries, as long as the operation of the democracy does not fall too short of people's expectations. The logical consequence of this is that in non-democratic countries such values should undermine support for any level of regime legitimacy, but the results give only limited support to this expectation. Generally, we seem to know little about the effects of post-materialist values in non-democratic states.

When it comes to education, the theory (Norris 2011: 130-131) that it by increasing people's cognitive capacity also increases their demand for, and expectations to, democratic governance, is generally confirmed. Higher levels of education seem to be a source of legitimacy in democracies, at least on the most diffuse levels of regime legitimacy, while undermining legitimacy for authoritarian regimes.

Other than Quality of Government, none of the country-level variables show effects as predicted by the theories. A high degree of ethnic fractionalization is thought to undermine the legitimacy by making it harder to develop a shared concept of the common good in a society that a regime is expected to fulfill (Easton 1965: 319). Contrary to this, the only evidence this thesis is able to find is that ethnically heterogeneous societies tend to have higher regime legitimacy. As a consequence, Rothstein's (2009) claim that ethnically fractionalized societies need to have high Quality of Government to be legitimate also lacks support.

The biggest deviance from the theories is how economic performance failed to show results in line with the expectations, considering how important it is generally thought to be (Gilley 2009a; Lipset 1959, 1994; McAllister 1999). What the results in this thesis suggests is that impartial exercise of public authority, through fair and uncorrupt processes, is more important that the economic performance of the regime, and that Quality of Government is the most important factor in creating regime legitimacy.

5.3 Implications for further research

The main finding of this thesis is that Quality of Government is more important than electoral democracy in creating regime legitimacy. It is probably the key factor. This indicates that the effect of democracy that one has seen in other studies (Gilley 2009a, Norris 2011) is in fact caused by Quality of Government. It also suggests that when explaining why support for democratic governance declines, or when explaining what makes regimes illegitimate and unstable, Quality of Government and how the regime exercises its power should not be ignored as an explanatory factor.

The importance of Quality of Government indicates that it deserves more attention in political science. The results here indicate that there is a strong relationship between Quality of Government and regime legitimacy, and Quality of Government is also thought to be a cause of many other desirable outcomes in society (Holmberg et. al 2009: 135-161; Rothstein 2011). The interesting question then is how one can achieve higher Quality of Government. What reforms are needed, and how can one implement reforms aimed at reducing corruption and discrimination in a regime where those who have to implement these reforms are the same people who benefit from the corruption? Further, more research should be directed at the relationships between Quality of Government, electoral democracy and economic performance. Knowing more about how these factors are connected could tell us more about how Quality of Government is created, and give us insights into the processes at work when trying to make a newly established democracy legitimate and stable. Since Quality of Government seems to be the key in creating legitimacy, knowing more about how to achieve it will increase the chance that newly established democracies survive and become well-functioning democracies.

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Appendices

Appendix a) Country mean on dependent variables

	Support for regime principles, country mean (0-10)							
Nr.	**Country**	**Mean**	**Nr.**	**Country**	**Mean**	**Nr.**	**Country**	**Mean**
1	Sweden	8,44	20	Netherlands	7,45	39	Poland	6,62
2	Norway	8,35	21	Uruguay	7,43	40	Colombia	6,61
3	Switzerland	8,25	22	France	7,37	41	Hong Kong	6,50
4	New Zealand	8,13	23	Zambia	7,36	42	Indonesia	6,50
5	Italy	8,02	24	USA	7,33	43	Ukraine	6,47
6	Germany	8,02	25	Georgia	7,30	44	Romania	6,44
7	Canada	7,97	26	Morocco	7,20	45	Serbia	6,43
8	Ghana	7,97	27	Slovenia	7,15	46	Iran	6,28
9	Vietnam	7,95	28	Iraq	7,09	47	Moldova	6,26
10	Australia	7,83	29	Chile	7,09	48	Russia	6,20
11	Andorra	7,74	30	Egypt	7,03	49	Bulgaria	6,19
12	Spain	7,74	31	South Africa	6,95	50	Thailand	6,16
13	Britain	7,65	32	Jordan	6,88	51	Brazil	6,14
14	Cyprus	7,58	33	China	6,80	52	Mali	6,06
15	Japan	7,57	34	Burkina Faso	6,77	53	Guatemala	6,05
16	Finland	7,55	35	Taiwan	6,74	54	Malaysia	6,04
17	Argentina	7,54	36	South Korea	6,72	55	India	6,01
18	Ethiopia	7,49	37	Turkey	6,71			
19	Trinidad and Tobago	7,48	38	Peru	6,68			

Support for regime performance, country mean (0-10)								
Nr.	**Country**	**Mean**	**Nr.**	**Country**	**Mean**	**Nr.**	**Country**	**Mean**
1	Vietnam	7,76	20	France	6,23	39	Colombia	5,12
2	Ghana	7,75	21	Indonesia	6,20	40	Slovenia	5,12
3	Finland	7,59	22	Taiwan	6,16	41	Morocco	5,04
4	Norway	7,52	23	Netherlands	6,14	42	Trinidad and Tobago	4,80
5	Switzerland	7,37	24	Germany	6,08	43	Turkey	4,80
6	Uruguay	7,35	25	Britain	6,07	44	Romania	4,62
7	Jordan	7,01	26	Cyprus	6,07	45	Iran	4,49
8	Sweden	6,95	27	USA	5,91	46	Peru	4,20
9	Canada	6,95	28	South Korea	5,88	47	Guatemala	4,10
10	Mali	6,94	29	Chile	5,78	48	Serbia	3,99
11	New Zealand	6,91	30	Japan	5,78	49	Moldova	3,91
12	Thailand	6,73	31	Mexico	5,75	50	Georgia	3,79
13	China	6,73	32	Zambia	5,73	51	Russia	3,70
14	South Africa	6,72	33	Argentina	5,57	52	Ethiopia	3,67
15	India	6,61	34	Andorra	5,41	53	Ukraine	3,62
16	Australia	6,58	35	Poland	5,36	54	Bulgaria	3,57
17	Malaysia	6,55	36	Burkina Faso	5,30	55	Iraq	3,52
18	Spain	6,37	37	Italy	5,26			
19	Hong Kong	6,35	38	Brazil	5,19			

	Support for regime institutions, country mean (0-10)							
Nr.	**Country**	**Mean**	**Nr.**	**Country**	**Mean**	**Nr.**	**Country**	**Mean**
1	Vietnam	8,70	20	Iran	4,93	39	Colombia	3,87
2	China	7,31	21	Canada	4,90	40	Chile	3,81
3	Jordan	7,20	22	Spain	4,78	41	Trinidad and Tobago	3,77
4	Rwanda	6,43	23	Burkina Faso	4,71	42	Bulgaria	3,74
5	Malaysia	6,37	24	Zambia	4,70	43	Taiwan	3,73
6	Ghana	6,08	25	South Korea	4,57	44	Georgia	3,72
7	Mali	6,05	26	Britain	4,55	45	Ukraine	3,69
8	South Africa	5,96	27	Australia	4,54	46	Ethiopia	3,66
9	Turkey	5,88	28	New Zealand	4,53	47	Mexico	3,65
10	India	5,73	29	Uruguay	4,51	48	Slovenia	3,44
11	Finland	5,71	30	USA	4,49	49	Moldova	3,38
12	Norway	5,71	31	Japan	4,42	50	Poland	3,32
13	Switzerland	5,67	32	Brazil	4,26	51	Romania	3,32
14	Morocco	5,33	33	Italy	4,20	52	Serbia	3,28
15	Cyprus	5,31	34	Russia	4,16	53	Argentina	2,96
16	Sweden	5,31	35	Andorra	4,13	54	Guatemala	2,84
17	Hong Kong	5,21	36	France	4,04	55	Peru	2,26
18	Indonesia	5,02	37	Germany	3,97			
19	Thailand	4,99	38	Netherlands	3,95			

Appendix b) Country score on Quality of Government and electoral democracy indexes

Country score on Quality of Government index (0-10)			
Country	**QoG score**	**Country**	**QoG score**
Finland	10	Moldova	5,3
Sweden	9,7	Thailand	5,3
New Zealand	9,7	Argentina	5,1
Norway	9,4	Bulgaria	5
Netherlands	9,4	Turkey	5
Australia	9,2	Iran	5
Canada	9,2	China	4,7
Britain	9,2	Mexico	4,7
Switzerland	8,6	Uruguay	4,7
USA	8,6	Peru	4,4
Cyprus	8,3	Ghana	4,2
Japan	8,1	Romania	4,2
Spain	7,7	Zambia	4,2
Chile	7,5	South Africa	4,1
France	6,8	Burkina Faso	3,9
Morocco	6,7	Brazil	3,8
South Korea	5,9	Colombia	3,7
Trinidad and Tobago	5,9	Ukraine	3,6
Italy	5,8	Guatemala	3,6
Poland	5,8	Indonesia	3,3
India	5,6	Russia	3,3
Jordan	5,6	Mali	3
Malaysia	5,6	Iraq	1,7

Country score on electoral democracy index (0-10)			
Country	**Electoral democracy score**	**Country**	**Electoral democracy score**
Andorra	10	India	8,5
Canada	10	Peru	8,5
Cyprus	10	Thailand	8,5
Finland	10	Trinidad and Tobago	8,33
Germany	10	Brazil	8,25
Italy	10	Serbia	8,25
Netherlands	10	Argentina	7,83
New Zealand	10	Ghana	7,75
Norway	10	Turkey	7,17
Slovenia	10	Guatemala	7
Spain	10	Indonesia	6,92

Sweden	10	Colombia	6,75
Switzerland	10	Ukraine	6,5
United Kingdom	10	Georgia	6,25
United States	10	Zambia	6,25
Uruguay	10	Russia	5,67
France	9,75	Burkina Faso	5
Japan	9,58	Malaysia	4,92
Poland	9,58	Ethiopia	4,42
Bulgaria	9,33	Iran	4,08
Chile	9,33	Jordan	3,25
South Africa	9,33	Rwanda	2,33
Taiwan	8,92	Egypt	1,83
Mexico	8,67	China	1,17
Romania	8,67	Vietnam	1,17
South Korea	8,67	Iraq	0,25

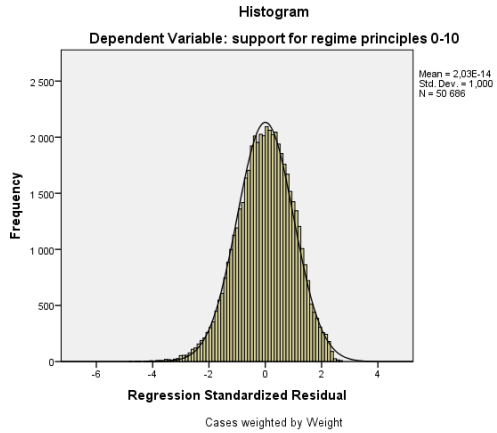
Appendix c) Test of statistical requirements for using multi-level analysis

The same requirements apply for multi-level analysis that applies to OLS analysis (Strabac 2007: 176; Christophersen 2009: 157-163). Ideally, each of these should have been tested on each of the countries involved in the study. That would be such a time consuming endeavor that I will have to make due with testing them on the entire sample. This tests show that the data satisfies the statistical requirements.

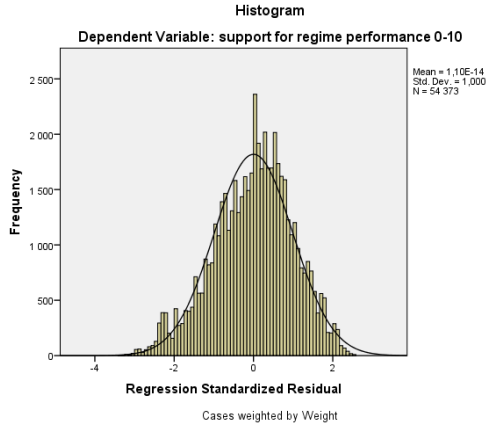
Normal distribution of the residuals

Residuals are the distance between predicted and observed values for each of the units in the analysis. It is important that the distribution of residuals follows the bell curve, though mainly in studies with fewer units than I have. The residual of each dependent variable is normally distributed.

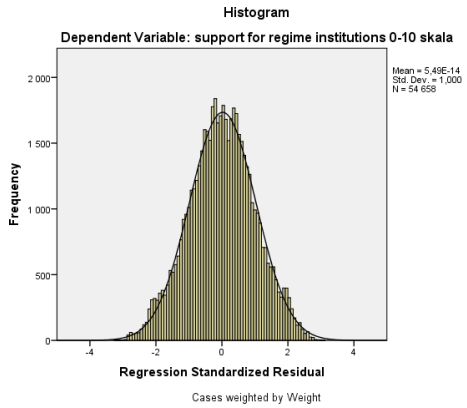
Support for regime principles



Support for regime performance



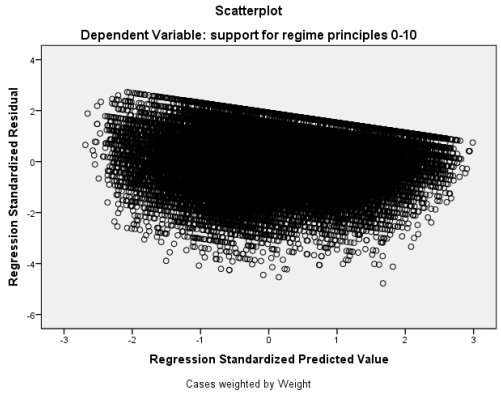
Support for regime institutions



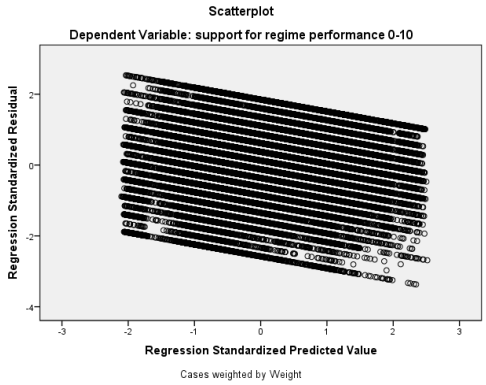
Heteroscedasticity

Ideally, our model should be homoscedastic, meaning that the variance of the residuals is the same for all values on the independent variables. If not, then we risk skrewed estimates of the standard errors, which again influence the significance testing (Eikemo and Clausen 2007: 118). For all the dependent variables in this study, we can see that there is a tendency towards heteroscedasticity, but I consider this to be at an acceptable level.

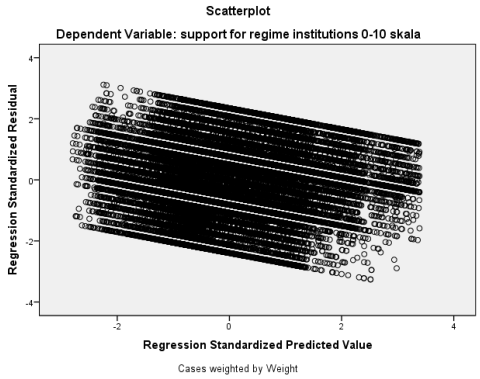
Support for regime principles



Support for regime performance



Support for regime institutions



Collinearity and Multicollinearity

Collinearity concerns whether some of the independent variables correlate to such a degree that it is difficult to separate their effect on the dependent variables from each other. Multicollinearity means that one of the independent variables correlated with a combination of two or more of the other independent variables. Both collinearity and multicollinearity affect the standard error, and makes it more difficult to achieve significant effects (Christophersen 2009: 160-161, Eikemo and Clausen 2007: 125). To test for collinearity we can look at a correlation matrix of all the independent variables. It shows low correlations between the individual level variables. Correlations between national-level variables are naturally a lot higher, however the only critically high correlation is between Quality of Government and GNP per capita, as mentioned in the thesis.

Correlations between individual-level variables (level-1)				
	Age	Social capital	Education	Post-Materialist values
Age	1	.032**	-.206**	-.040**
Social capital	.032**	1	.052**	.055**
Education	-.206**	.052**	1	.151**
Post-Materialist values	-.040**	.055**	.151**	1
**. Correlation is significant at the 0.01 level (2-tailed).				

Correlations between country-level variables (level-2)							
	Quality of Government	Democracy	Growth in GDP (5 years)	Gini index	Ethnic fractionalization	GNP per capita	Growth in GDP (10 years)
Quality of Government	1	.579**	-.223**	-.519**	-.414**	.855**	-.267**
Democracy	.579**	1	-.460**	-.075**	-.030**	.586**	-.663**
Growth in GDP (5 years)	-.223**	-.460**	1	-.093**	.074**	-.475**	.680**
Gini index	-.519**	-.075**	-.093**	1	.497**	-.416**	-.083**
Ethnic fractionalization	-.414**	-.030**	.074**	.497**	1	-.382**	.010*
GNI per capita	.855**	.586**	-.475**	-.416**	-.382**	1	-.371**
Growth in GDP (10 years)	-.267**	-.663**	.680**	-.083**	.010*	-.371**	1
**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).							

If we omit the GNP per capita variable, then there are no problems with multicollinearity as the tolerance level is way above the low level of .20 and VIF is way below the upper level of 5. Only the variable for growth in GDP over the last five years shows some tendency to multicollinearity, which I deem as acceptable.

Multicollinearity test of individual level variables						
	Support for regime principles		Support for regime performance		Support for regime institutions	
	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF
Age	.956	1.046	.955	1.048	.959	1.042
Social capital	.990	1.010	.990	1.010	.993	1.007
Education	.934	1.071	.932	1.073	.939	1.065
Post-Materialist values	.976	1.024	.976	1.024	.976	1.025

Multicollinearity test of country-level variables			
	Support for regime principles	Support for regime performance	Support for regime institutions

	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF
Quality of Government	.454	2.202	.460	2.175	.460	2.175
Democracy	.550	1.818	.527	1.899	.517	1.935
Growth in GDP (5 years)	.334	2.997	.319	3.139	.313	3.195
Gini index	.521	1.921	.520	1.923	.526	1.901
Ethnic fractionalization	.682	1.466	.696	1.437	.705	1.419
Growth in GDP (10 years)	.402	2.485	.381	2.621	.372	2.689

Influential units

There are a number of different ways to determine if there are any influential units in the sample. The table shows that there are no influential units in the sample. Values higher than 1 on Cook's D indicates units that influence the estimation, whereas on Centered Leverage Value values higher than 2k/n needs to be looked at (Eikemo and Clausen 2007: 134). In our case that value is 2*5/63027=0,000159. Though that is a low value, the maximum value on Centered Leverage Value is 0. Standardized Dfbeta values between -1 and 1 indicate no influential units (Christophersen 2009: 163).

	Support for regime principles		Support for regime performance		Support for regime institutions	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Cook's Distance	.000	.001	.000	.000	.000	.000
Centered Leverage Value	.000	.000	.000	.000	.000	.000
Standardized DFBETA Intercept	-.02855	.02933	-.01905	.01748	-.01606	.01661
Standardized DFBETA Age	-.03679	.02683	-.02837	.02225	-.01968	.02863
Standardized DFBETA Social capital	-.02976	.03562	-.02029	.01689	-.02085	.01218
Standardized DFBETA Education	-.03176	.03494	-.02110	.02470	-.02070	.02154
Standardized DFBETA Post-materialist values	-.03721	.02515	-.02249	.01831	-.01890	.02039

Appendix d) Countries with no available data on country-level independent variable

Independent variable	Country with no available data
Quality of Government index	Georgia, Hong Kong, Andorra, Rwanda
Electoral democracy	Hong Kong, Andorra
Ethnic fractionalization	Vietnam, Serbia, Hong Kong, Andorra, Ethiopia, Germany
Economic growth last 5 years	Taiwan, Egypt, Hong Kong, Andorra
Economic growth last 10 years	Slovenia, Taiwan, Egypt, Hong Kong, Andorra
Gini index	Japan, Cyprus, Iraq

Appendix e) Missing values – correlations

Correlation between missing on independent and valid values on dependent							
	missing: social capital	missing: education	missing: age	missing: post-materialist values	valid: support for regime principles	valid: support for regime performance	Valid: support for regime institutions
missing: social capital	1	.027**	.027**	.095**	-.009*	-.011**	-.007
missing: education	.027**	1	.125**	.022**	-.012**	.005	.009*
missing: age	.027**	.125**	1	.021**	-.031**	.017**	.022**
missing: post-materialist values	.095**	.022**	.021**	1	-.042**	.020**	.014**
valid: support for regime principles	-.009*	-.012**	-.031**	-.042**	1	.182**	.038**
valid: support for regime performance	-.011**	.005	.017**	.020**	.182**	1	.413**
Valid: support for regime institutions	-.007*	.009*	.022**	.014**	.038**	.413**	1
** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).							

Correlations between missing on independent and missing on dependent variables							
	missing: social capital	missing: education	missing: age	missing: post-materialist values	missing: support for regime principles	missing: support for regime performance	missing: support for regime institutions
missing: social capital	1	.027**	.027**	.095**	.070**	.023**	.031**
missing: education	.027**	1	.125**	.022**	.028**	.010**	.016**
missing: age	.027**	.125**	1	.021**	.013**	.002	.001
missing: post-materialist values	.095**	.022**	.021**	1	.181**	.072**	.053**
missing: support for regime principles	.070**	.028**	.013**	.181**	1	.293**	.087**
missing: support for regime performance	.023**	.010**	.002	.072**	.293**	1	.477**
missing: support for regime institutions	.031**	.016**	.001	.053**	.087**	.477**	1
** Correlation is significant at the 0.01 level (2-tailed)							